16453

Class _____. No. _____

Presented by

C. F. Taylor, M.D.

Digitized by the Internet Archive
in 2013

http://archive.org/details/medicalage15detr

THE MEDICAL AGE

A SEMI-MONTHLY JOURNAL OF

MEDICINE AND SURGERY

DOCTOR G. ARCHIE STOCKWELL, F.Z.S.,
EDITOR.

VOLUME XV.

DETROIT, MICHIGAN
WILLIAM M. WARREN, PUBLISHER
1897

MAY 16 1898

AUTHORS' INDEX.

Axtell, E. R.: Gall-stones 1
Beach, Eugene: An Unusual Manifestation of Acute Rheumatism 142
Beal, Fred rick E.: Accidental Hæmorrhage 679
Beatie, W. R.: Infantile Intestinal Catarrh (Enterocolitis). 737
Bell, A. K.: Interesting Surgical Cases 588
Bell, Forest F.: Croup 236
Benedict, A. L.: One Way of Attacking the Dispensary Evil 618
Bickford, L. C.: Aseptic Surgery in the Country 174
Biddle, Andrew P : Treatment of Acne Simplex 266
Bishop, Seth Scott: Chronic Suppuration of Middle Ear. 259
Blaine, James M.: Acne 206
Botsford, R. L.: Tuberculosis of Bladder Cured with Nuclein Solution 654
Bowen, F. J.: Pneumonia 141
Brett, B. C.: The Best Method of Sewage-Disposal on Farms and in Small Communities 33
Bullock, Thomas S.: Extensive Destruction of Soft Parts Following Labor 424
Carstens, J. H.: Appendicitis 329
Carter, J. M. G.: Local Treatment of Gastric Diseases ... 553
C. E. L.: "The Doctor" 720
Cleary, George: Some Cases of Interest in Ophthalmic Surgery 8
Cline, Isaac M.: Influences of Climatic Conditions on Functions of Skin. 134
Cox, Chas. N.: Cough Due to Irritation in Upper Air-Passages 110
Cutter, Ephraim: Fatty Degenerations That Are Normal Fatty Ills and Their Masquerades ... 356, 385, 417, 449, 487, 519, 547, 577
Dennis, John: The Fluorometer in Surgery 648
Donald, Wm. M.: Castration for Degenerates 492
Dugan, William C.: Fracture of Skull 688
Dulles, Charles W.: Comforting Facts About Consumption 321
Du Pre, D.: Typical Texan (Septic) Fever 495
Edlén, E. A.: Observations on Influenza 298
Eggers, G. C.: Nasal Reflexes 265
Ely, William S.: Medicinal and Dietetic Treatment of Typhoid Fever 230
Emmert, J. M.: Development of Acute Infectious Diseases 262
Exline, J. W.: The Sanitation of Mines 99
Ferguson, Alexander H.: Injection Treatment of Hip-joint Disease 107
Fly, A. W.: Three Cases of Cholecystotomy 269
Frink, L. J.: Disordered Digestion 138
Gasser, H.: Pleasure and Pain and Consciousness 673
Gilmore, G. H.: Effect of La Grippe on Pregnancy 739
Graham, C. B.: Hypertrophic Rhinitis with Myxoma 270
Grant, W. W.: Railway Spine and Litigation Symptoms. 649
Halsey, F. S.: A Pleasant Contrast 112
Harriman, W. E.: Rhus and Allied Poisonings 295
Hays, D. J.: The Surgical Treatment of Cystitis Due to Chronic Prostatic Obstruction 589
Herriott, E. L.: Fractures of Some Long Bones 613
Hill, E. C.: Cloudy Urine 681
Hill, G H.: Senility, Senile Dementia, Pathology, and Testamentary Capacity 163
Horne, J. Fletcher: Some Recent Successful Cases of Brain Surgery 97
Howard, J. J.: Measures to Prevent Physicians from Contracting Contagious Diseases which Enter by the Air Passages 11
Hoyt, Frank C.: Epilepsy 161
Jenkins, Stuart: Origin of the Vertebrates 193, 225
Kittson, J. L.: Pneumonia 112
Kyle, John J.: Irritating Effects of Natural Gas upon Trachoma 261
Leech, W. Stuart: Diphtheria Cases: Neuritic Colic (?).. 302
Lemond, Robert F.: Granular Conjunctivitis and Trachoma Not Synonymous 102
Lewis, Bransford: Seminal Vesiculitis as an Obscure and Elusive Disease 353
M'Comb, J. A.: Puerperal Spasms 427
M'Gregor, G. W.: Myxœdema 175
Macrae, F. B.: Uric Acid Diathesis 586
Mapes, C. C.: A Review of the Dangers and Evils of Bicycling 641
Causes of Sterility in the Female 516
Contagiousness of Inherited Syphilis 685
How We Eat—and the Economics of Food 429
Infanticide—the Slaughter of the Innocents 741
Purity and Marriage 712
Some Irregular Medical Practices 129
Notes on Suicide 555
Mathews, Joseph M.: Tuberculosis of Rectum 239
Max, Emanuel: New Treatment of Otalgia Tympanica ... 104
Meachem, J. G.: Rapid Dilatation of Cervix During First Stage of Labor 747
Moody, G. W.: Nausea and Vomiting of Pregnancy 3
Mullen, J. Aloysius: Functional Impairment of the Auditory Centre as the Result of Catarrhal Deafness 35
Neel, J. M.: Report of Surgical Cases 77
Noer, J.: Water-Borne Diseases 458
Nye, F. T.: Shall the State Treat Tuberculosis as Contagious? 10
Ormsby, O. B.: The Sociologic Aspect of Gonorrhœa 718
Ortega, Ricardo: Conservative Surgery 653
Pendell, Edgar J.: Melancholia 525
Perkins, J. M.: Amputation of the Leg Above the Knee Without Giving Chloroform or Ether, by Infiltration and Deep Injection 750
Pritchard, J. F.: Hygiene of Public Conveyances 170
Ransom, J. B.: Necessity of New Methods of Early Diagnosis in Tubercular Disease 460
Reeve, James S.: Examination of Blood as an Aid to Diagnosis 705
Reynolds, Dudley S.: Asthenopia 364
Richardson, A. P.: Fragilitas Ossium Complicated with Hysteria 687
Robertson, W. M.: A Common Cause of Loose Bodies in the Knee-joint 332
Rogers, Edmund J. A.: Some Abdominal Cases 239
Rumble, S.: Puerperal Eclampsia 455
Sampson, F. E.: Suppurative Inflammation of the Frontal Sinuses 292
Samson, James: Two Unnamed Diseases 481
The Study of Gall-Stones 513
Sanderson, Herman H.: The Care of a Granulating Surface 334
Sarles, W. T.: The Procuration of Water-supply 716
Sawyer, W. H.: Puerperal Cystitis 6
Shadwell, A.: The Hidden Dangers of Cycling 200
Shimonek, F.: Diagnosis and Treatment of Uterine Deviations 609
Simpson, Frank C.: Stricture of Rectum from Dysentery. 583
Smith, H H.: Myxœdema 545
Stockwell, C. B.: Epilepsy Treated with Large Doses of Horse-nettle 485
Stone, E. P.: Chancre of the Tonsil 65
Taylor, W. A.: Serum Therapy Not All of Rational Medicine 393
Thomas, C. P.: Plastic Vaginal Surgery 75
Thompson, J. H.: Concerning Glaucoma 367
Thompson, P. C.: Case of Motor Aphasia 235
Tucker, George W.: The Care of Schoolchildren 584
Ward, E. B.: A Friend in Need 752
Asepsis versus Antisepsis 335
Milk Diet in Albuminuria 684
Personal Experience with Phthisis 13
Ward, W. E.: The Hustling Doctor 621
The Original Package 711
Watson, E. W.: Do We Yet Know Ourselves? 167
Weir, L. J.: A Peculiar Case 588
White, J. S.: Cretinism Treated by Desiccated Thyroids.. 268
Williams, Howard J.: Some Albuminuric Complications of Pregnancy, Labor, and the Puerperal Period 40
Wilson, J. C.: Modern Treatment of Diphtheria 257
Wood, Horatio C.: The Modern Estimate of Quinine 289
Woodson, M. S.: Foreign Bodies in Alimentary Canal of Children 425
Young, J. W.: Remote Results of Unrepaired Lacerations of the Peritoneum and Cervix 233

16453

GENERAL INDEX TO VOLUME XV.

Abdominal cases 239
exploration 288
section, silk or catgut in 635
surgery and vomiting 256
Abortion, criminal 692, 721
normal and otherwise 510
vinegar in 506
Abscess, maxillary—transillumination and 314
Absorption of drugs by the skin 25
of ferratin 155
of glonoin 252
Abuse of drugs 121
A cancer quack in trouble 692
Accidental hæmorrhage 679
Acetanilid, dangers of 508
Acetone alcohol 596
in urine an indication of fœtal death 768
Acetylene gas a poison 501
A change of the editorial pilot 753
Acne 92, 206, 220
obstinate 57
oil of turpentine in 730
punctata 156
rosacea 315, 636
simplex, treatment of 266
Aconite 155
Action of diphtheria poison 573
Addison's disease 512
Administration of arsenic 155
Advertising dishonesty 341
After-pains, relief of 156
Agaricin 283
Air-passages, upper—cough due to irritation in 110
Albumen, new test for 700
Albuminuria, corn-silk in 252
milk diet in 684
Albuminuric complications of pregnancy, labor, and the puerperal period 40
Alcohol and common sense 243
as an antidote to carbolic acid 532
as a predisposing cause of sunstroke 533
for poisoning or burns caused by carbolic acid ... 468
in carcinoma 345
in therapeutics 560
in typhoid 506
Alcoholism, post-mortem evidence of disease antecedent to 188
Alimentary canal, foreign bodies in 379, 425
Alopecia 127
Amber, cement for 502
Amenorrhœa, anemonine in 28
Amputation, a substitute for 383
of the leg above the knee without giving chloroform or ether, by infiltration and deep injection 750
Amylolytic action of taka-diastase 506
Anæmic vertigo 692
Anæsthesia 283, 633
chloroform 251
collapse in 665
for local 476
induced by compression of vagus 574
nausea of 251
nystagmus in 637
safe 347
teaching 256
Anæsthetic, a new 147
chloroform as an 720
local—cocaine as a 220
tents 668
Anæsthetics and plants 660
a rare risk from 287
Anal fissure 281, 512
Analgesic mixture for extraction of teeth 27
Anaphrodisiacs 754
Anatomical specimens, preservation of 111
Anchoring the kidney 702
Aneurysm of aorta, latent 96, 192
of aortic arch; rhythmic nodding of head in ... 32
sign of latent aortic 639
simulating spinal disease 448
Angina pectoris and cardiac dilatation 731
nitroglycerin in 441
Animal products 502
Anonychia, congenital 160
Antagonism of diseases 82
of morphine and cocaine 538
Antidote to carbolic acid, alcohol as 532
Antigalactic, camphor as an 315
Antipyretics, therapy of 187
Anti-rabic inoculation, four deaths after 285
Antisepsis versus asepsis 335
Antiseptic, cinnamon water as an 570
formaldehyde as an 766
Antiseptics, alkaline, in surgical work 633
Antitoxin in diphtheria 666
Anus, fissure of 668
Aphasia, curiosities of 61
medico-legally considered 542
Apiol, a new 245
Apomorphine 444
and hysteria 539
Appendicitis 224, 319, 329, 628, 704
Areca catechu 177
nut for worms in dogs 603
A royal M.D. 564
Arsenic, administration of 155
antidote for 442
for chorea 634
in leucorrhœa 628
in nervous gastralgia 220
in scarlatina 539
in vagina, poisoning by 281
Arsenious acid in epithelioma 505
Ars laboris 30
Arteries and veins, suture of 127
Artificial diamonds 660
rain-storm, an 725
Asafœtida in colic 731
Ascaris, fatal diarrhœa due to 64
Asepsis versus antisepsis 335
Aseptic surgery, fetich worship in 221
in the country 174
Asthenopia 364
Asthma 188, 252, 316, 441, 731
for the relief of 764
Atrophy, optic, following sexual excess 672
Atropine and quinine 186, 476
in eye diseases 572
not a respiratory stimulant 219
Aural diphtheria 703
Autoplasty of the prepuce among the ancient Hebrews ... 383

Baby incubators on hire 565
Bacterial pathology, newer developments in 241
Bactericide, saliva a 288
Bacteriology not simple 575
Baldness, for threatening 220, 443
parasitic 603
Bandage for sprained ankle 473
Bath, the Turkish 186
Bathing 757
Baths for infants 511
influence of upon menses 122
public—why they are essential 477
Bedbugs and disease 639
Bed-sores 155
Beef essence 91
Beer, imported 758
Belladonna 250
and phytolacca in galactorrhœa 507
in bronchitis 186, 346
in sterility 474
Benzene poisoning, a case of 383
Benzoin tincture for scabies 476
Berberis aquifolium for pimples 316
Beri-beri in Ireland 658
Best time for sleeping 160
Bicycle 318
and the kidneys, the 319
Bicycling, a review of the dangers and evils of 641
for women 533
Birch leaves as a diuretic 538
Bladder, irritable 508, 636
stone in 256
tuberculosis of cured with nuclein solution 654

Blaud's mass in capsules 540
Bleeding gums 412
Blemishes, pigmentary, of the skin 730
Blindness from eucaine 603
Blister, new application of 252
Blisters 123
Blood, application of fresh, for hæmorrhage in hæmophilia 698
changes in after thyroidectomy 639
distinctions between human and animal 32
examination of as an aid to diagnosis 705
stains, to remove 348, 700
Boils 761
Bones, sesamoid 209

Book Reviews:

Abbott, A. C.: The Principles of Bacteriology 759
About, Edmond: The King of the Mountains 471
Allbutt's System of Medicine 309
American System of Practical Medicine. Edited by Alfred L. Loomis and William Gilman Thompson 470
Anders, James M.: A Text-book of the Practise of Medicine 630
Annual of the Universal Medical Sciences for 1895. Edited by Charles E. Sajous 662
Armstrong, William: An American Nobleman 55
A System of Practical Medicine Edited by Alfred L. Loomis and William G. Thompson 150
Ball, M. V.: Essentials of Bacteriology 631
Barlow, C., and Taylor, H. R.: The Story of the Faral-lones 406
Bendire, Charles: Life Histories of North American Birds 247
Bishop, Seth L.: Diseases of the Ear, Throat and Accessory Cavities 276
Black, D. Campbell: The Medical Environment 55
Boothby, Guy: The Fascination of the King 214
Borden, John: Value 535
Bourinot, J. G.: The Story of Canada 661
Boysgobey, Fortué du: Fontenay the Swordsman 119
Buck, J. D.: Mystic Masonry 247
Bulletin of the United States Fish Commission 534
Burnett, J. Crompton: Organ Diseases of Women 248
Cabot, Richard: A Guide to the Clinical Examination of the Blood for Diagnostic Purposes 54
Caine, Hall: The Deemster 630
Capes, B. E. J: The Mill of Silence 277
Chapman, Frank M.: Bird Life 309
Clay, Bertha M.: For Another's Sin 598
The Earl's Atonement 375
Which Loved Him Best 439
Cook, Lady (Viscountess de Montserrat): Essays on Social Topics 503
Currier, Andrew F.: The Menopause 438
Daland, J., Bruce, Mitchell, and Findlay, David: International Clinics 276, 727
Dana, Charles L.: Text-book of Nervous Diseases 597
Di Zerega, Katherine Berry: Bijou's Courtship 150
Dormer, H.: Ueber Spat Formen von Angeborener Syphilis 55
Duhring, Louis A.: Cutaneous Medicine 727
Dupouy, Edmond: Prostitution in Antiquity 85
Earle, Alice Morse: Curious Punishments of Bygone Days 54
Ebert, Albert E., and Hiss, A. Emil: The Standard Formulary 149
Edwards, William A.: Two Health Seekers in Southern California 21
Ellis, Edward S.: The Eye of the Sun 310
Evans, William L.: Memory Training 277
Ewald, C. A.: Diseases of the Stomach 276
Fenn, George Manville: Cursed by Fortune 534
Fenwick, W. Soltau: Disorders of Digestion in Infancy and Childhood 405
Fletcher, J. S.: In the Days of Drake 534
Fox, George Henry: Skin Diseases of Children 760
Gay, Mary A. H.: Life in Dixie During the War 405
Gould, George M., and Pyle, Walter L.: Anomalies and Curiosities of Medicine 54
Gould, George M.: The American Year-Book of Medicine and Surgery 150
Goullon, H.: Die Skrophulosen Erkrankunger und die Vorzuge Ihrer Behandlungsweise Nach den Principen und Erfahrungen der Homöopathie 55
Greene, Ryland W., assisted by John Ashhurst, Jr., George A. Piersol, and Joseph P. Remington: Lippincott's Medical Dictionary 309
Greene, Ryland W.: The Pocket Medical Dictionary 760
Hare, H. A.: A Text-book of Clinical Therapeutics 758
Practical Diagnosis 662
Hartelius, T. J.: The Manual of Swedish Movements 85
Herrold, Justin: A Manual of Legal Medicine 726
Hertwig, Richard: General Principles of Zoology 54
Heysinger, I. W.: The Scientific Basis of Medicine 631
Hinsdale, Guy: Syringomyelia 277
Holbrook, M. L.: Stirpiculture 760
Homœopathic Calendar for 1897 55
Hopkins, William B.: The Roller Bandage 471
Horton, Henry R., and Curtis, B. Farquhar: Practice of Surgery 661
Hughs, George Shelley: Ancient Civilizations 119
Hyde, J. Nevins: A Clinical Treatise on Diseases of the Skin 150
Ingersoll, Ernest: Golden Alaska 566
International Clinics. Edited by Judson Daland, J. Mitchell Bruce, and David W. Finlay 503, 760
International Medical Annual for 1897 277
Jordan, David S., and Evermann, Barton W.: The Fishes of North and Middle America 247
Karazin, N. N.: The Captive Nun 248
Kelley, Samuel W.: About Children 630
Kellogg, Theodore H.: Text-book on Mental Diseases 438
Kinkead, Nellie Talbot: Gainst Wind and Tide 631
Kirk, Eleanor: Influence of the Zodiac upon Human Life 21
Kirstein, Alfred, and Thoiner, Max: Autoscopy of the Larynx and Trachea 55
Klemperer, G.: Clinical Diagnosis 759
Landolt and Gygax: Vade Mecum of Ophthalmologic Therapeutics 694
Leahy, W. H.: Incendiarism 214
Le Conte, Joseph: Elements of Geology 438
Lehmann, K. B., and Neumann, Rudolf: Atlas and Essentials of Bacteriology 566
Le Queux, William: Devil's Dice 310
Levet, Benjamin F., and Perris, Fred T.: Miner's Map of Southern California 535
McGovern, John: History of Paints, Pigments, and Colors 598
Mack, Charles S.: Principles of Medicine 566
Mallory, Frank B: Bacteriological Technique 630
Mason, R. Osgood: Telepathy and the Subliminal Self 309
Meigs, Arthur V.: The Origin of Disease 629
Moure, E. J.: Traitement de l'Ozene Rhinite Atropique Fétide 375
Mulhane, L. W.: Leprosy and the Charity of the Church 86
Mynter, Herman: Appendicitis and its Surgical Treatment 630
Palmer, Charles Follen: Inebriety: Its Source, Prevention, and Cure 182
Park, Roswell: An Epitome of the History of Medicine 662
Penrose, Charles H.: A Text-book of Diseases of Women 566
Phelps, Charles: Traumatic Injuries of the Brain and its Membranes 662
Phillips, W. S: Totem Tales 150
Pozzi, S.: A Treatise on Gynæcology, Clinical and Surgical 759
Treatise on Clinical and Operative Gynæcology 630
Proceedings of the Association of Military Surgeons of the United States. Edited by James E. Pilcher 726
Pye, Walter: Elementary Bandaging and Surgical Dressing 151
Ranney, Ambrose L.: Eye Strain in Health and Disease 471
Read, Opie: An Arkansas Planter 21
Reed, Hugh T.: Cadet Life at West Point 85
Reference Book of Clinical Therapeutics Edited by Frank P. Foster 470
Report of the State Board of Health of Michigan for 1895 761
Report of the United States Commission of Fish and Fisheries for 1895 214
Report of the United States Fish Commission for 1893 55
Report of the United States Fish Commission for 1894 54
Russell, Dora: A Man's Privilege 470
Russell, W. Clark: Auld Lang Syne 247
Sajous, Charles E.: Annual of the Universal Medical Sciences 758
Saundy, Robert: Lectures on Renal and Urinary Diseases 150
Savage, Richard Henry: A Daughter of Judas 598
A Modern Corsair 277
Delilah of Harlem 310
For Her Life 597
In the Old Chateau 439
Miss Devereux of the Mariquita 598
Prince Schamyl's Wooing 406
Storm Signals 406
The Flying Halcyon 406
The Little Lady Lagunitas 310
The Princess of Alaska 375
Schaeffer, Oscar: Atlas and Essentials of Gynæcology 247
Senn Nicholas: Tuberculosis of the Genito-Urinary Organs, Male and Female 534
Sergeant, Adeline: The Lady Charlotte 535
Simon, Charles E.: A Manual of Clinical Diagnosis by Microscopical and Chemical Methods 726
Sixteenth Annual Report of the State Board of Health of New York 182
Skene, Alexander J. C.: True to Themselves 534
Stedman, Thomas L.: The Twentieth Century Practise 759
Stevens, A. A.: A Manual of the Practice of Medicine 150
Sutton, J. Bland, and Giles, Arthur E.: Manual of Diseases of Women 535
System of Diseases of the Eye. Edited by William F. Norris and Charles A. Oliver 470

Book Reviews—*Continued.*
Taylor, Alfred S.: A Manual of Medical Jurisprudence.. 629
Taylor, Robert W.: Sexual Disorders of the Male and Female.. 629
Thayer, William Sidney: Lectures on Malarial Fevers.. 629
Third Annual Report of the American Academy of Railway Surgeons. Edited by R. Harvey Reed. .. 597
Transactions of the American Microscopical Society.... 405
Transactions of the Royal Academy of Medicine in Ireland. Edited by William Thompson .. 405
Transactions of the Medical Society of the State of New York for 1897.. 534
Transactions of the Michigan State Medical Society.... 760
Tussey, A. E.: High Altitudes for Consumptives.. 86
Twentieth Century Practice. Edited by Thos. L. Stedman.. 85, 248, 503
Twenty-eighth Annual Report of the State Board of Massachusetts .. 761
Urchard, Mario: My Uncle Barbassou.. 406
Vicentini, Filandro: Bacteria of the Sputa and Cryptogamic Flora of the Mouth .. 119
Waller, Augustus D.: On Animal Electricity.. 662
Physiology and Electro-Physiology of the Nervous System.. 535
Warner, William R.: Pocket Medical Dictionary of Today .. 310
Wheeler, Olin D.: Wonderland—'97.. 310
White, J. William, and Martin, Edward: Genito-Urinary and Venereal Diseases.. 149
Williamson, Walter: Diseases of Females and Children and Their Homœopathic Treatment.. 598
Witthaus, R. A., and Becker, Tracy C.: Medical Jurisprudence, Forensic Medicine, and Toxicology.. 22
Wood, Mrs. Henry: Danesbury House.. 470
Year-Book of Treatment for 1897.. 248

Boracic acid in ear disease .. 569
Bowel, resection of.. 659
Brain surgery, some recent successful cases of.. 97
Brandt method in typhoid.. 283, 628
Bright's disease.. 160
British Medical Association .. 529
Bromide of sodium and gelsemium in pneumonia .. 658
Bromides, unexpected effects of.. 90
Bromine treatment of diphtheria.. 537
Bronchial catarrh.. 475, 699
cleft .. 480
Bronchitis .. 731
belladonna in .. 186, 346
capillary, asafœtida in .. 28
Bruises, olive oil for.. 634
Bryonia and gelsemium .. 252
Bryonin as a cathartic .. 539
Bubo, abortion of.. 380
Bubonic plague, the.. 626
Bullet wounds, some curious.. 479
Bullous cinchona and quinine eruption.. 507
Burgundy pitch .. 252
Burns from carbolic acid, treatment of.. 444, 468
potassium nitrate for.. 348
treatment of extensive.. 667

Cacti.. 758
Calcium chloride in itching.. 380
sulphide in eruptions.. 700
value of.. 185
Calculi, intestinal, of salol.. 571
Calomel in heart disease.. 282
treatment of.. 540
Camphor an antidote to strychnine.. 724
as an antigalactic.. 315
cultivation in Florida.. 628
Canadian Medical Association.. 532
Cancer.. 91, 341, 541
ætiology of.. 541
and arsenious acid .. 505
chelidonium in.. 570
infection.. 51
morphine and cocaine in inoperable.. 51
mortality abroad.. 672
of pylorus.. 704
of rectum .. 384
of stomach .. 475, 763
of uterus, lactic acid in.. 698
paste .. 444
ridden country, a.. 21
Cancerous matter, vomiting large masses of.. 317
Cannabis extract, dose of.. 538
Indica, aqueous extract of.. 156
Capsella bursa pastoris as a kidney remedy.. 731
Carbolic acid, alcohol as an antidote to.. 532
alcohol in poisoning, and burns caused by.. 48
and iodoform, objections to.. 186
burns, treatment of.. 444, 468
caution .. 508
in the treatment of tetanus.. 757
Carbuncles, abortion of.. 283
Carcinoma .. 570
Carcinoma, alcohol in .. 345
of cervix in a young girl.. 126
of rectum.. 192
Cardiac dilatation and angina pectoris.. 731
Carron oil and zinc oxide.. 634
Castor oil, odorless.. 149
palatable .. 700
plant, the.. 603
vehicle for.. 220
Castration for crime.. 21
for degenerates.. 492
for enlarged prostate.. 121
of the feeble-minded.. 340
Cataract.. 220
cineraria in.. 731
senile.. 768
Catarrh, bronchial.. 475, 699
chronic post-nasal .. 668
gastro-intestinal.. 604
infantile intestinal (enterocolitis) .. 737
powder, a harmless.. 699
Catarrhal deafness, functional impairment of the auditory center as the result of.. 35
jaundice.. 284
pneumonia, asafœtida in.. 28
Catgut or silk in abdominal section.. 635
Cathartic, bryonin as a .. 539
hot water as a.. 633
Catheterism of the ureter in male.. 570
Catheter, passing the.. 92
Catheters, preservation of gum.. 412
Cement for amber .. 502
Centenarian, inquest on a .. 627
Cepheline as an emetic .. 252
Cerebral localization, experimental .. 528
surgery, the risks of.. 62
Cerumen and deafness.. 660
Cervical glands, enlarged and indurated.. 635
Cervix and perineum, remote results of unrepaired lacerations of the.. 233
carcinoma of, in a young girl.. 126
Chancre of the tonsil.. 65
soft.. 474
Changes in milk caused by boiling.. 480
Chapped hands.. 187, 220, 476
Chaulmoogra oil.. 154
Chelidonium in cancer.. 570
Chian turpentine as a hæmostatic .. 121
Chin as an index of character, the.. 318
Chinese doctors in the U. S.. 564
"Chinese Yeast".. 241
Chloral in diseases of children.. 409
in labor.. 59
Chlorides, retention of in uræmia .. 480
Chloroform anæsthesia.. 251
and ether .. 280
corrigents of.. 27, 475
Chloroform aphorisms .. 569
as an anæsthetic.. 720
collapse .. 665
hydrocyanic acid an antidote to .. 159, 409
nascent, in vaginal injections .. 283
Chlorosis, chronic.. 668
Chocolate-coated pills .. 540
Cholagogues.. 655
anent so-called.. 348
Cholecystotomy, three cases of.. 269
Cholera borne by water.. 458
infantum, iris versicolor in.. 28
magnesium sulphate in.. 474
Chorea.. 147, 634
Churched twice in one week.. 627
Cicatricial tissue, fibers of.. 575
Cigarette habit, dangers of the.. 50
the.. 765
Cinchona and quinine, bullous eruption from.. 507
Cinnamon in the treatment of constipation.. 569
water as an antiseptic.. 570
Cirrhosis, urea in.. 156
Cleanliness and honesty.. 765
Clerics and the doctors, the .. 304, 338
Climatic conditions, influences of, on functions of skin.. 134
Clitoris in neuroses, rôle of.. 287
Cloudy urine.. 681
Coal tar products.. 186
Cocaine and morphine, antagonism of.. 538
as a local anæsthetic.. 220
fistulas cured by.. 315
for tetanus.. 252
habit, the .. 565
in surgery.. 153
in tetanus.. 725
vesication produced by.. 601
warm solutions of.. 252
Cocainism, chronic .. 128
Coca wine and its dangers.. 255
Coccyx, fracture of.. 185
Cod-liver oil.. 666

Cod-liver oil, a substitute for 219
Coffee in childhood 604
blindness 320
Coitus, incomplete, an evil of 608
Cold tub, the 757
Colic, asafœtida in 28, 731
water in treatment of 633
Collapse in anæsthesia 665
Collinsonia in hæmorrhoidal affections 540
Colocynth 185
Colon bacilli a cause of enuresis 533
Comedones 218
Comparative myological nomenclature 498
Compression of vagus, anæsthesia induced by 574
Conception and menstruation, effect of lactation upon 638
Concretion in mouth, a large 317
Congenital anonychia 160
Congestion of the lungs, hot water in 633
Conjunctiva, fatal hæmorrhage from 128
Conjunctivitis, gonorrhœal 57
granular 57, 476
and trachoma not synonymous 102
purulent infantile 251, 730
Constipation and pelvic congestion 636
congenital 59
in children 186, 380
treatment of 90, 282, 377
Consumption 532
beneficial effects of tobacco in 507
comforting facts about 321
from cattle 244
silver nitrate and ergotin in 667
treatment of, by cinnamon 569
Consumptives not dangerous pests 660
Contagious diseases, periods of isolation for 25
which enter by the air-passages, measures to prevent physicians from contracting 11
Contagiousness of inherited syphilis 685
Convulsions and spasms in children: apoplexy 314
puerperal 58
Copulation per urethra 416
Cordol as a sedative 501
Cornea, ulcers of 27
Corneal opacities 28
Corn-silk in albuminuria 252
Corrigents of chloroform and ether 27, 475
Corrosive sublimate in the disinfection of sleeping apartments 697
Corsets 725
effect of 224, 246, 256
Coryza 476
abortive treatment of 26
acute 412, 572
or hay-fever, remedies for 762
Cotton, iodized 635
Cough, cochineal for 244
due to irritation in upper air-passages 110
mixture 443
reflex 512
sundew as a remedy for 89
Country practitioner, the surgery of the 607
Couvade, the 20
Coxalgia, early diagnosis of 543
"C. P." chemicals 603
Cream-tartar and sulphur as a laxative 508
Creosote in gastric affections 668, 699
in general septicæmia 508
in gonorrhœa 52
in phthisis 635
in pneumonia 475
Cretin fœtus, gestation of 50
Cretinism treated by desiccated thyroids 268
Criminality and narcotism 271
Croup 236, 314
and diphtheria 180
and pharyngitis 188
hot water to relieve 633
spasmodic 699
Crying evil, a 143
of babies, to stop 53
Cutaneous irritation of measles 187
Cycling and heart disease 122
hidden dangers of 200
Cystitis, chronic 124, 380, 700
due to chronic prostatic obstruction, surgical treatment of 589
in the female 218, 410, 697
orchitis, and ovaritis 700
puerperal 6
senile 380
Cystocele, vaginal—operation for 512

Dampness of a house, to estimate the 127
Dandruff 443, 699
Danger in the barber shop 754
of standing water 544
Dangers in lean meat 352
Dangers of kola 155
Deafness and enuresis, mullein oil in 348
catarrhal, functional impairment of the auditory center, as the result of 35
caused by cerumen 660
Death-chair 659
Death of Sir Spencer Wells 82
Degeneracy 96
Degenerates, castration for 492
Delirium tremens 602
Delivery in the moribund 576
Dentifrice, liquid 187
Depilatory, iodine as a 508
Dermatology, tuberculin in 767
Detested ricinus 603
Development of acute infectious diseases 262
of mammary functions by the skin 544
Diabetes 252
and uranium nitrate 698
oxygen in 28
rhus aromatica for 92
Diagnosis by germs 660
examination of blood as an aid to 705
Diamonds, artificial 660
Diarrhœa, fatal, due to ascaris 64
fœtid 26
infantile 474
Diarrhœas of children, opium in 409
Diastatic ferment, therapeutic application of 116
power of malt extracts 502
Dietetics, newspaper 81
Diet in phthisis 410
in typhoid, less restricted 313
Dieting in dyspepsia 156
in skin diseases 537
Digestion, disordered 138
gastric 128
Digestive ferments 701
Digitalis 412, 508
Diphtheria 537
and croup 180
antitoxin in 666
aural 703
cases: neuritic colic (?) 302
modern treatment of 257
poison, action of 573
sodium hyposulphite in 28
Diploma mill 371
Dipsomania 315
Diseased and unwholesome meat 669
Diseases, antagonism of 83
Disinfectant, a cheap 348
for fabrics, lime-water as a 698
Disinfection of sleeping apartments 697
Dispensary abuse, the correction of the 768
evil, one way of attacking 618
Diuretic and diaphoretic, dourahinha as a 540
birch leaves as a 538
Sambucus nigra as a 59
Diurnal incontinence 729
Dogs, worms in 603
Double uterus, successive pregnancies of a 224
Dourahinha 540
Do we yet know ourselves ? 167
Drug eruptions 191
to prevent 636
Drug habit, the 469
Drugs, abuse of 121
neglected 123
Drunkenness, analysis of gold cure 438
Drunk on kerosene 603
Duboisine, intolerance of 26
Duodenal indigestion, chronic 217
Dysentery, lactophenin in 633
stricture of rectum from 583
Dysmenorrhœa, viburnum opulus in 28
Dyspepsia 764
and gout, taka-diastase in 249
chronic—in children 156
dieting in 156
hot water in 633

Ear, cold water in diseases of 444
complications in scarlatina 667
disease, boracic acid in 569
foreign body in 316
inflating the 379
middle—chronic suppuration of 259
suppositories 337
Earliest human ovum, the 63
Early diagnosis of pregnancy 704
Echinacea in furunculosis 508
in spinal meningitis 540
Eclampsia, puerperal 184, 455, 507
Eczema, impetigo, etc., remedy for 636
iris versicolor in 28
nasal 348
of palm 668

Eczema, picric acid in ... 443
Education in the young, evil effects of too much ... 702
Eggs, variation in owing to change of habitat ... 502
Elbow-joint, injury at the ... 64
Electrical treatment of hemiplegia ... 756
Electrically salted meat ... 758
Electricity and massage in sprains ... 538
dangers of ... 307
to disperse swellings ... 572
Elephant poisoning by prussic acid ... 469
Emergency tracheotomy ... 700
Emetic, cepheline as an ... 252
Emmenagogue, ragwort as an ... 242
Endometritis ... 188
Enteritis, muco-membranous—intestinal sand and ... 384
Enterocolitis ... 737
Enucleation of both eyes in exophthalmic goitre ... 384
of eye under cocaine ... 26
Enuresis ... 188, 476, 533
and deafness, mullein oil in ... 348
in female children ... 512
Epidemics of crime ... 370
Epilepsy ... 58, 161, 283, 442, 731
bromide of potassium in ... 476
from tobacco ... 224
senile ... 63
treated with large doses of horse-nettle ... 485
tusa in treatment of ... 341
Epistaxis ... 219, 444, 731
Epithelioma and arsenious acid ... 505
Epsom salt, poisoning by ... 116
Ergot, effect of ... 315
use and abuse of ... 377
Ergotin and silver nitrate in consumption ... 667
Erodium cicutarium ... 58
as a hæmostatic and uterine tonic ... 90
Eruption, bullous, from cinchona and quinine ... 507
of the skin, menstrual ... 32
Eruptions, calcium sulphide in ... 700
drug ... 191
from drugs, to prevent ... 636
Eruptive diseases ... 315
Erysipelas, abortion of ... 412
facial ... 412, 604
Ether, administration of ... 540
and chloroform ... 280
corrigents of ... 27, 475
in uræmia ... 666
removal of after-effects by oxygen ... 56
Eucaine, blindness from ... 603
Euformol ... 374
Eunuchs in China ... 157
Euthanasia ... 755
Evil effects of too much education in the young ... 702
Evolution of the mind ... 561
Excessive venery ... 571
as a cause of sterility ... 517
Excretion of uric acid, influence of drugs on ... 185
Exophthalmic goitre ... 412, 757
and thyreoid ... 537
enucleation of both eyes in ... 384
specific for ... 59
Expectorant and sedative ... 635
Expectoration and tuberculosis ... 305
Explosion of potassium chlorate tablets ... 635
Extraction of teeth, analgesic mixture for ... 27
Extraordinarily prolific ... 160
Eyeball, new method of treating certain deviations of ... 280
Eye diseases, atropine in ... 572
disorders during menstruation ... 284
enucleation of, under cocaine ... 26
foreign bodies in ... 124
Eyesight of children ... 543

Facial erysipelas ... 604
incisions ... 320
Fads in medicine ... 565
Fæcal impaction ... 384
Falling hair, prescription for ... 58
Fatty degenerations that are normal ... 324
ills and their masquerades ... 356, 385, 417, 449, 487, 519, 547, 577
Fecundity, extraordinary ... 160
Feeble-minded, castration of the ... 340
Feeding, irregular—the Sunday penalty of ... 31
Feet, fœtid ... 59, 187
sweating ... 475
Female sexual organs and influenza ... 480
Fennel oil in whooping-cough ... 508
Ferment, an oxidation ... 96
Ferratin ... 502
absorption of ... 155
in tuberculosis ... 602
Ferrous carbonate in capsules ... 540
Fertility of twins, the ... 766
Fevers, simple continued, not typhoid or malarial ... 369
Fever, typical Texan (septic) ... 495
urethral ... 730
Fibroids, thyroids for ... 597
uterine—thyroid extract for ... 508
Fin-de-siecle therapeutics ... 115
Fish-bones in the pharynx ... 219
Fissure of the anus ... 512, 668
Fistula, bronchial—a case of ... 480
cured by cocaine ... 315
in ano ... 380
Floral monstrosities ... 596
Fluorometer in surgery, the ... 648
Fœtal death, acetone in urine an indication of ... 768
Fœtid diarrhœa ... 26
Fœtus, to determine death of the ... 768
Follicular tonsillitis ... 540
gargle for ... 604
Fontanelle, significance of the ... 576
Foreign bodies in eye ... 124
in stomach ... 191
swallowing of ... 124
Formaldehyde as an antiseptic ... 766
Formalin for sweating feet ... 475
Fracture of scapula by muscular action alone ... 157
of skull ... 688
Fractures, passive motion after ... 314
of some long bones ... 613
of trachea and larynx ... 32
Fragilitas ossium complicated with hysteria ... 687
Freckles and sunburn ... 731
Frontal sinuses, suppurative inflammation of the ... 292
Functional impairment of the auditory center as the result of catarrhal deafness ... 35
Functions of the lumbar cord ... 478
Funeral, the public ... 316
Furunculosis ... 188, 508

Galactagogue, thyroidin as a ... 636
Galactorrhœa ... 507
Gall-stone pains, ipecac in ... 124
Gall-stones ... 1
potassium iodide in ... 219
the study of ... 513
two thousand from one patient ... 384
Gargle for follicular tonsillitis ... 604
red-gum ... 570
Gastralgia, arsenic in nervous ... 220
Gastric affections, creosote in ... 668, 699
digestion ... 128
diseases, local treatment of ... 553
disorders, taka-diastase in various ... 378
indigestion ... 764
juice, hydrochloric acid in ... 640
pain, hydrastis in chronic ... 91
Gastro-intestinal catarrh ... 604
disturbances, birch agaric in ... 27
Gelsemium and bryonia ... 252
for ovarian pains ... 508
hypodermatically ... 282
General practitioner, the ... 592
Genitals, warty growths on ... 124, 315
Germicidal soap, a new ... 373
Germ theory attacked ... 373
modifications of ... 532
Germs, diagnosis by ... 660
Gestation of cretin fœtus ... 50
Glaucoma ... 367, 572, 697
acute ... 313
and iridectomy ... 638
management of ... 345
Globus hystericus ... 189
Glonoin, absorption of ... 252
Glycerin, crystalized ... 180
Goitre, exophthalmic ... 412, 757
and thyreoid ... 537
enucleation of both eyes in ... 384
specific for ... 59
Gold-cure for inebriety ... 469
Golden-seal in bronchial catarrh ... 475, 699
Gonorrhœa ... 124, 153, 572
acute ... 250
and sterility ... 640
and syphilis ... 703
creosote in ... 52
injection for ... 570
in women ... 730
Janet treatment of ... 411
prophylactic ... 59
rectal—in women ... 473
some internal metastases of ... 60
the sociologic aspect of ... 718
Gonorrhœal conjunctivitis ... 57
Gout ... 184, 316, 476
and dyspepsia, taka-diastase in ... 249
and rheumatic affections ... 63, 315
local treatment of ... 572
Gouty eczema ... 764
Granular conjunctivitis ... 57, 476
and trachoma not synonymous ... 102
Granular lids ... 188

Granulating surface, the care of..... 334
Green urine..... 469
Grindelia squarrosa..... 284
Guaiac in hæmaturia..... 604
Guaiacol, dangers of..... 51
hypodermatically..... 341
Gums, bleeding.....412, 444
Gunpowder stains..... 252

Hæmaturia.....604, 731
malarial..... 697
Hæmophilia, a case of..... 448
Hæmorrhage..... 284
accidental..... 679
fatal—from the conjunctiva..... 128
from gums..... 444
in hæmophilia..... 698
renal—hamamelis in..... 572
Hæmorrhoidal affections, colluisonia in..... 540
Hæmorrhoids.....188, 220, 252, 284, 380
external..... 604
ointment for.....540, 636
Hæmostatic and uterine tonic, a new..... 90
chian turpentine as a..... 121
sulphate of soda as a.....187, 603
vinegar as a 154, 506
Hagar-Brand's olfactory..... 730
Hair, falling out of.....58, 412
function of the..... 286
on forehead, lack of..... 320
removal of superfluous..... 602
tonic..... 729
Hallux valgus, treatment of..... 217
Hamamelis in renal hæmorrhage..... 572
Hands, remedy for chapped..... 476
Hares, an epidemic of strongylus in 541
Hasty burials..... 565
Hay-fever.....378, 443
or coryza, remedies for..... 762
Headache from ovarian disease..... 636
Headaches..... 448
hot water in..... 633
Heart, action of digitalis on..... 508
disease, calomel in..... 282
and cycling..... 122
iodides in..... 569
potassium nitrate in 348
Heart in umbilical hernia..... 96
palpitation of the..... 635
Helonias..... 444
Hemiplegia, electrical treatment of..... 756
Heredity and insanity in idiocy..... 190
Hernia, inguinal..... 380
injection treatment of..... 665
umbilical—heart in..... 96
in infants..... 442
Herpes..... 764
Hiccough, an epidemic of 544
Hidden dangers of cycling..... 200
Hindu lying-in chamber 416
Hip disease, conservative treatment of..... 767
diagnosis of..... 736
Hip-joint disease, injection treatment of..... 107
Hoarseness..... 571
in singers..... 729
Horse beef..... 565
nettle in large doses for epilepsy 485
Hospital contagion of syphilis..... 128
ward of glass 658
Hot water and ulcer of the stomach..... 57
How we eat—and the economics of food 429
Hustling doctor, the..... 621
Huxley on tobacco 756
Hydrastis canadensis in bronchial catarrh.....475, 699
in chronic gastric pain..... 91
Hydrocele, new operation for 379
Hydrocephalus and meningitis 509
Hydrochloric acid in gastric juice..... 640
Hydrocyanic acid an antidote to chloroform.....159, 409
Hydrophobia.....48, 307
diagnosis of..... 51
prophylaxis..... 754
report on 413
vs. common sense.....592, 623
Hygiene of public conveyances..... 170
Hyoscine hydrobromate..... 284
Hyoscyamine in paralysis agitans..... 473
Hyperidrosis 27
sage in..... 57
Hypertrophic rhinitis with myxoma 270
Hypnotism as a therapeutic agent 185
Hypochlorhydria..... 412
Hypodermatic injections, giving of..... 601
purposes, water for 569
Hysteria, apomorphine in the treatment of..... 539
complicating fragilitas ossium..... 687
in diagnosis of perityphlitis..... 736

Ice-bag in pneumonia..... 346
Identification of acetanilid, phenacetine, and antipyrin... 149
Idiocy, heredity and insanity in..... 190
Illuminant, a new..... 84
Immorality of the anti-vivisection movement 605
Immunity to poisonous insects..... 255
Impetigo, eczema, etc., remedy for..... 636
Impregnation without penetration 126
Incontinence, diurnal..... 729
of urine..... 731
urinary..... 59
Indian hemp poisoning..... 312
India, medical practise in 530
Indigestion 475
chronic duodenal 217
gastric..... 764
Inebriety, secret remedies for..... 469
Inertia uteri, quinine in 475
Infanticide—the slaughter of the innocents..... 741
Infantile conjunctivitis, purulent..... 251
diarrhœa..... 474
feeding..... 441
intestinal catarrh (enterocolitis)..... 737
pneumonia..... 282
scurvy..... 533
Infants, baths for..... 511
chronic malnutrition of 507
Infectious diseases, development of acute..... 262
nature of acute rheumatism..... 512
Infiltration and deep injection as a mode of anæsthesia in amputation of leg..... 750
Inflammation, excessive, from vaccination..... 313
Inflating the ear..... 379
Influence of emotion..... 253
Influences of climatic conditions on functions of skin..... 134
Influenza 316, 412
and the female sexual organs..... 480
observations on..... 298
Ingrowing nail.....219, 251
Inguinal hernia..... 380
Inherited syphilis, contagiousness of..... 685
Injections, the giving of hypodermatic..... 601
Injection treatment of hernia..... 665
of hip-joint disease..... 107
Ink for use on glass 659
Inquest on a centenarian 627
Insane, swallowing of foreign bodies by the 657
thyroid treatment of the..... 510
Insect powder, poisoning by..... 660
Insects, poisonous—immunity to..... 255
Insomnia.....347, 433
Intercostal neuralgia 764
Interesting surgical cases 588
Interstitial nephritis, remedy for chronic..... 476
Intestinal calculi of salol 571
sand and muco-membranous enteritis..... 884
Intoxication, some unknown phenomena in..... 478
Intubation 475
useful points in..... 756
Intussusception, rare case of..... 256
Iodides in heart disease..... 569
Iodine as a depilatory 508
Iodism..... 283
to prevent..... 443
Iodized cotton 635
Iodoform and carbolic acid, objections to 186
calomel..... 251
Ipecac in gall-stone pains..... 124
in pneumonia..... 667
Iridectomy and glaucoma..... 638
Iritis..... 636
"Iron-hunger" 442
muriate tincture, in tonsillitis..... 507
Irregular medical practises..... 129
Irrigation of pericardium..... 113
of pleural cavity..... 699
Irritable bladder..... 508
temper..... 187
Isolation for contagious diseases, periods of..... 25
Is spitting a crime?..... 190
the athlete healthy?..... 689
this an age of cleanliness?..... 768
Itch, cure of in two hours..... 634
Itching, calcium chloride in..... 380
Ivy poisoning.....700, 731

Janet treatment of gonorrhœa 411
Jaundice, catarrhal..... 284
Moringa pterygosperma in 90
Judicial mind in medicine..... 732
Junket..... 604

Keeley cure..... 596
Kerosene, drunkenness from 603
Kidney, anchoring the..... 702
and liver, to differentiate tumor of 128
movable—palliative treatment of 25

Kidneys, and the bicycle ... 319
Kissing as a digestive ... 659
Kleptomania ... 18
Knee-joint, a common cause of loose bodies in the ... 332
Koch's researches on tuberculin ... 271
Kola, dangers of ... 155

Labor, alleviation of pain in ... 186
chloral in ... 59
extensive destruction of soft parts following ... 424
problem, the ... 755
quinine in ... 667
rapid dilatation of cervix during first stage of ... 747
tedious, and rigid os ... 92
the obstetric binder after ... 692
Lacerations of the perineum and cervix, remote results of unrepaired ... 233
Lactation and potassium iodide ... 700
effect of, upon menstruation and conception ... 638
use of thyreoid in ... 378
Lactic acid and uterine cancer ... 698
in stomach ... 96, 724
Lactophenin ... 633
La grippe, effect of on pregnancy ... 739
Large doses of olive oil, what becomes of ... 89
Larynx and trachea, fractures of ... 32
resection and extirpation of ... 379
Lateral sinus, exploration of ... 444
Lavage of the organism ... 608
Laxative, an excellent ... 508
a pleasant ... 729
Lead poisoning, new source of ... 638
Leeches in puerperal eclampsia ... 507
preservation of ... 21
rearing ... 118
Legalized charlatanism in Michigan ... 209
Lemon juice to prevent ophthalmia neonatorum ... 508
Lens, regeneration of ... 49
Leprosy ... 212
curable and non-contagious ... 639
new treatment for ... 156
Leucorrhœa ... 244, 628
chronic ... 156, 380
Licensing physicians in Iowa ... 564
Life insurance and the Keeley cure ... 596
Lime-water as a disinfectant for fabrics ... 698
Lithiasis in boys ... 25
Litholapaxy in the female ... 416
Liver and kidney, to differentiate tumor of ... 128
Lizard story, the ... 560
Lockjaw, unusual case of ... 608
Locomotor ataxia ... 160
Locusts, to destroy ... 308
Long bones, fractures of some ... 613
Loose bodies in knee-joint, a common cause of ... 332
Low educational standards in the United States ... 143
Lumbago and sciatica ... 692
Lumbar cord, functions of the ... 478
Lung, surgery of the ... 704
Lupus and potassium permanganate ... 729
Lymphoma, malignant, and tuberculosis ... 192

Magical remedies ... 63
Magnesium sulphate in infantile diarrhœa ... 474
Malaise, general ... 730
Malarial fever and the opium habit ... 466
hematuria ... 697
Malaria in children ... 764
marked forms of ... 128
Malnutrition in infants ... 348, 442, 507
Malt extracts ... 502
Mammary functions by the skin, development of ... 544
Man in the glacial period ... 208
versus woman ... 692
Marriage of the dead ... 210
Massage in skin diseases ... 313
Masturbation ... 572
as a cause of sterility ... 517
Maternal impression ... 402
Matrimonial sterility ... 512
Measles ... 92, 634
calcium in the treatment of ... 185
cutaneous irritation of ... 187
diagnosis of ... 352
Meat, diseased and unwholesome ... 669
electrically salted ... 758
substitutes ... 511
Medical court of honor, a ... 146
oddities ... 114
papers, revision of ... 595
practise in India ... 530
practises, some irregular ... 129
resources of British Guiana ... 562
spelling ... 49
superstition ... 159
topics in fiction, observations on ... 284
treasure-trove in Switzerland ... 242
Medication, simplicity in ... 127
Medicine, the judicial mind in ... 732
Melancholia ... 525
Melanosis from arsenic ... 32
Ménière's disease and pilocarpine ... 123
Meningitis and hydrocephalus ... 509
early sign of ... 64
spinal—echinacea in ... 540
Menses, influence of baths upon ... 122
Menstrual skin eruption ... 32
Menstruation and conception, effect of lactation upon ... 638
and ovulation ... 19
biological basis of ... 637
precocious ... 640
Methyl salicylate in gonorrhœa ... 572
Metric system plainly stated ... 118
Metritis ... 505
Michigan sanitary work used abroad ... 690
Microbe, mission of the ... 372
Micro-organisms in mother's milk ... 660
Migraine and neuralgic headache ... 731
Milk, changes caused by boiling ... 480
diet in albuminuria ... 684
sterilized ... 59
Mimic power of the uterus ... 640
Mind, evolution of the ... 561
Mines, sanitation of ... 99
Misplaced sentiment ... 382
Mistakes, why doctors make ... 125
Mistletoe ... 283
Moribund, delivery in the ... 576
Moringa pterygosperma in jaundice ... 90
Morphine anæsthesia ... 633
an antidote to potassium cyanide ... 56
and atropine in malarial hematuria ... 697
and cocaine, antagonism of ... 538
Mosquitoes ... 757
Mother's milk, micro-organisms in ... 660
Motor aphasia ... 235
Move in the right direction ... 145
Mullein oil in deafness and enuresis ... 348
Mummied heads ... 433
Mumps ... 252
ointment for ... 156, 444
turpentine in ... 508
Muriatic acid, poisoning by ... 474
Muscular rheumatism ... 154, 187
Musculus supraclavicularis proprius of Gruber ... 542
Muzzling and dog-days ... 532
Myalgia ... 252
Myological nomenclature, comparative ... 498
Myopia ... 565
Myxœdema ... 175, 545

Nail, ingrowing ... 251
Narcotism and criminality ... 271
Nasal douche, acute otitis media caused by ... 187
micro-organisms ... 704
reflexes ... 265
ulcers ... 540
Nascent chloroform in vaginal injections ... 283
Natural gas, irritating effects of, upon trachoma ... 261
Nausea and vomiting of pregnancy ... 3
of anæsthesia ... 251
Nebraska's medical law ... 565
Necessity of new methods of early diagnosis in tubercular disease ... 460
Neglected drugs ... 123
Negro, psychological status of the ... 64
Nephritis, chronic—fish diet in ... 379
interstitial—remedy for ... 476
Nephritis, pilocarpine externally in ... 218, 572
salol in ... 187
Nervous diseases ... 212
manifestations of syphilis ... 543
Neuralgia ... 320, 764
and toothache, hot water in ... 633
intercostal ... 764
liniment for ... 27
osmic acid injections in ... 411
sanguinaria in ovarian ... 91
remedies for ... 156, 476
Neuralgic headache and migraine ... 731
Neuritis ... 668
New flexible film ... 693
sign of latent aneurysm of aorta ... 96
Newspaper dietetics ... 81
Night sweats ... 251, 411
Nipples, fissured ... 314
Nitroglycerin in angina pectoris ... 441
Nitrous oxide, death following use of ... 347
in obstetrics ... 251
Nomenclature, comparative myological ... 498
Nose-bleeding in childhood ... 640
Noses, red ... 220
Nothing new under the sun ... 19, 318
Not necessary to die ... 755
Nuclein in puerperal sepsis ... 380
solution, tuberculosis of bladder cured with ... 654

Nucleins ... 596
Nymphomania ... 57, 124
Nystagmus in anæsthesia ... 637

Obesity, thyreoids in ... 154
Obstetric binder after labor ... 692
Obstetrics, nitrous oxide in ... 251
silly ... 319
Obstinate acne ... 57
Œdema ... 764
Oil of cade in skin affections ... 58
Ointment for mumps ... 156
Oldest physician in the United States ... 757
Old-time remedies ... 31, 125
Oleander ... 186
Olive oil and the plague ... 634
for bruises ... 634
what becomes of large doses of ... 89
Ophthalmia neonatorum ... 58, 508
Ophthalmic surgery, some cases of interest in ... 8
Opium ... 444
habit ... 466
in diarrhœas of children ... 409
poisoning by ... 26
Optic atrophy following sexual excess ... 672
Orchitis ... 28, 444, 636
ovaritis, and cystitis ... 700
Original package, the ... 711
Origin of the vertebrates ... 193, 225
Osmic acid injections in neuralgia ... 411
Ossicles, removal of ... 604
Osteomyelitis ... 64, 160, 191
Osteopathy ... 83, 275, 403, 436, 499
Otalgia tympanica, new treatment of ... 104
Otitis media, acute, caused by nasal douche ... 187
suppurative ... 256
Otorrhœa and hydrogen dioxide ... 59
Ovarian disease, headache from ... 636
picrotoxin in ... 184
Ovarian neuralgia, sanguinaria in ... 91
pains, gelsemium for ... 508
Overstudy in young girls ... 464
Ovulation and menstruation ... 19
Ovum, the earliest human ... 63
Oxidation ferment, an ... 96
Oxygen after ether ... 56
treatment of ulcers by ... 763
Oxytocic, quinine as an ... 153, 475

Pain and its therapeusis ... 602
in labor, amelioration of ... 186
Painless tooth extraction ... 540
Palpitation of the heart ... 635
Pancreatin ... 701
Paper horseshoes ... 660
Paralysis agitans ... 473
Parasitic baldness ... 603
Paris catastrophe, the ... 306
Paroxysmal sneezing ... 636
Passiflora ... 188
Passing the catheter ... 92
Pathological swellings ... 572
Pathology in fiction ... 656
Peculiar case, a ... 588
Pediculi, oil of sassafras to destroy ... 28
Pellotine ... 539
Pelvic congestion and constipation ... 636
Pelvis, pus in ... 128
Perforation, section for typhoid ... 127
Pericardium, irrigation of ... 113
Perineum and cervix, remote results of unrepaired lacerations of the ... 233
to preserve the ... 512
Peritoneal irrigation and drainage ... 312
Peritonitis ... 59
Perityphlitis, hysteria in diagnosis of ... 736
Perspiration, fœtid, of feet ... 59
toxicity of ... 564
Pessaries ... 288
Pharyngitis ... 468
and croup ... 188
chronic ... 315
Pharynx, fish-bones in the ... 219
Phenomena in intoxication ... 478
Phlegmon of hand ... 347
Phosphorus poisoning ... 572
Phthisis ... 667
cinnamon in the treatment of ... 569
creosote in ... 635
diet in ... 410
personal experience with ... 13
vomiting in ... 411
Physicians on steamships, etc., employment of ... 622
Phytolacca and belladonna in galactorrhœa ... 507
berries ... 441
Picric acid in eczema ... 443
Picrotoxin in ovarian diseases ... 184
Pills, chocolate-coated ... 540
Pills, solubility of coated ... 209
Pilocarpine externally in nephritis ... 218, 572
in the treatment of Ménière's disease ... 123
Pimple cure, new ... 316
Pin-worms ... 316, 444
Placenta prævia ... 762
the ... 29
Plague in Bombay, the ... 399
in the East ... 80
Plants and anæsthetics ... 660
Plaster of Paris, to retard the setting of ... 20
Plasters, the dangers of ... 731
Plastic vaginal surgery ... 75
Pleasant contrast, a ... 112
Pleasure and pain and consciousness ... 673
without other sensations ... 607
Pleural cavity, irrigation of ... 699
Plumbism, new source of ... 638
or cancer ... 541
Pneumonia ... 91, 112, 141, 160, 250, 448, 658, 667
creosote in ... 475
ice-bag in ... 346
infantile ... 282
modern views of ... 158
Poisoned by Epsom salt ... 116
Poisoning by carbolic acid, alcohol in ... 468
in infants ... 508
Poisoning by Indian hemp ... 312
by insect powder ... 660
by muriatic acid ... 474
by opium ... 26
by phosphorus ... 572
by potassium chlorate, fatal ... 571
by santonin ... 668
Poisonous properties of pulse ... 538
Post-mortem evidence of disease antecedent to alcoholism ... 188
Potassium bromide in epilepsy ... 476
chlorate, fatal poisoning by ... 571
tablets, explosion of ... 635
Potassium cyanide, morphine an antidote to ... 56
iodide ... 58
and lactation ... 700
in gall-stones ... 219
Potassium nitrate for burns ... 348
in heart disease ... 348
Potassium permanganate for nasal ulcers ... 540
in lupus ... 729
Potassium vs. sodium iodide ... 186
Pott's curvature ... 474
Poultice, spice ... 507
Powder stains, to remove ... 187
Precocious menstruation ... 640
Pregnancies, successive, of a double uterus ... 224
Pregnancy, a remarkable case of unsuspected ... 177
diagnosis of by urinary phosphates ... 319
early diagnosis of ... 704
effect of la grippe on ... 739
eleven months' ... 448
labor, and the puerperal period, some albuminuric complications ... 40
physical status of ... 640
vomiting of ... 444, 729
Premonitory symptoms of puerperal infection ... 767
Prepuce, autoplasty of the, among the ancient Hebrews ... 383
Prescribing for children ... 25
Preservation of anatomical specimens ... 111
Priapism ... 703
Primate brain, the ... 349
Prince of Wales as a medical man ... 595
Prolapsed uterus ... 576
Prolific royal family, a ... 468
Prophylactic ... 668
Prostate, enlarged ... 192, 320, 410
castration for enlarged ... 121
Prostatic hypertrophy and retention ... 639
surgical treatment of ... 345
Prostatic obstruction, chronic—surgical treatment of cystitis due to ... 589
plexus of veins ... 608
Pruritus ani ... 763
of pudendum ... 315
vulvæ ... 284
Prussic acid, poisoning an elephant by ... 469
Psoriasis ... 730
Psychological status of the negro ... 64
Pterygium ... 380
removal of ... 58
Public conveyances, hygiene of ... 170
Puerperal eclampsia ... 58, 59, 184, 455, 507
fever ... 251
infection, premonitory symptoms of ... 767
sepsis ... 602, 763
nuclein in ... 380
Puerperal spasms ... 427
Pulsatilla ... 539
in cystitis, orchitis, and ovaritis ... 700
Pulse, poisonous properties of ... 538

Purity and marriage ... 712
Purpura hæmorrhagica, turpentine in ... 571
Purulent infantile conjunctivitis ... 730
Pus in pelvis ... 128
in urine, detection of ... 160
Pylorus, cancer of ... 704
Pyrexia, typhoid without ... 128

Quackery in Germany ... 503
Quacks and gulls ... 757
Quinine and atropine ... 186, 476
and cinchona, bullous eruption from ... 507
as an oxytocic ... 153, 475
hydrochlorsulphate ... 27
in labor ... 667
in suppositories ... 180
mixture ... 443
modern estimate of ... 289
tasteless ... 92
to disguise ... 244
Quinsy and tonsillitis ... 240

Rabies ... 402, 660
Radial nerve, extension of ... 124
Ragwort as an emmenagogue ... 242
Railway spine and litigation symptoms ... 649
Rain-storm, an artificial ... 725
Rapid dilatation of cervix during first stage of labor ... 747
Reading with defective vision ... 448
Rectal gonorrhœa in women ... 473
valve an anatomical fact ... 95
Rectum, carcinoma of ... 192, 384
tuberculosis of ... 239
Red-gum gargle ... 570
Reflex cough ... 512
Regeneration of lens ... 49
Relapses in typhoid ... 565
Remedies, old-time ... 125
Remedy worse than the disease ... 48
Removal of superfluous hair ... 602
Renal hæmorrhage, hamamelis in ... 572
Report of surgical cases ... 77
Resorcin as a test for albumen ... 700
camphor ... 444
Respiratory stimulant, atropine not a ... 219
Retention of chlorides in uræmia ... 480
prostatic hypertrophy and ... 639
Rheumatic affections and gout ... 63
Rheumatism, acute ... 282
infectious nature of ... 512
unusual manifestation of ... 142
Rheumatism and gout ... 315
and walnut lore ... 147
chronic ... 604
hot water in ... 633
muscular ... 154, 187
Rhinitis, hypertrophic—with myxoma ... 270
Rhus and allied poisonings ... 295
aromatica for diabetes ... 92
Rhythmic nodding of the head in aneurysm of aortic arch ... 32
Rigid os, tedious labor and ... 92
Rime frost as a product of nitrogenous compounds ... 757
Roentgen energy, apparatus to rectify distortion of shadow ... 648
Rosacea, remedy for ... 764
Round worms in stomach ... 544
Royal college of physicians, the ... 655
Rust, to protect steel from ... 628

Sage in hyperidrosis ... 57
Salicylate of sodium, intolerance to ... 411
Salicyl-creosote paste ... 700
Salicylic acid in eczema of palm ... 668
Saliva a bactericide ... 288
Salol ... 252
in nephritis ... 187
intestinal calculi of ... 571
Sambucus nigra as a diuretic ... 59
Sanguinaria in ovarian neuralgia ... 91
Sanitary bible, a ... 565
progress in the far East ... 532
Sanitation of mines ... 99
Santonin poisoning ... 668
Sarcoma and native Algerian doctors ... 320
Saw palmetto ... 251
Scabies ... 476
Scapula, fracture of the, by muscular action alone ... 157
Scarlatina ... 730
arsenic in ... 539
ear complications in ... 667
nephritis ... 180
prevention of ... 179
with eruption limited to the face ... 576
Scarlet fever ... 91, 473
and measles ... 307
Schoolchildren, care of ... 584
Sciatica ... 59, 188, 348, 604, 731
and lumbago ... 692
Scientific palmistry ... 381
Scirrhus of the mamma, early appearance of ... 191
Scorpion oil ... 187
Scurvy ... 249
infantile ... 533
Sea devil ... 500, 563, 636, 691
Seasickness ... 665
mechanical treatment of ... 763
Seborrhœic vaginitis ... 512
Sedative and expectorant ... 635
cordol as a ... 501
Salix nigra as a ... 179
Seidlitz powders, sweet ... 59
Seminal emissions ... 476
thuja in ... 730
Seminal fluid, new test for ... 542
vesiculitis as an obscure and elusive disease ... 353
Senile cataract ... 708
epilepsy ... 63
tuberculosis ... 543
Senility, senile dementia, pathology, and testamentary capacity ... 163
Sepsis, puerperal ... 602
Septicæmia, general ... 508
Septic fever ... 495
Serum therapy not all of rational medicine ... 393
Sesamoid bones ... 209
Sewage-disposal on farms and in small communities, the best method of ... 33
Sexual excess, optic atrophy following ... 672
Sham nucleins ... 596
Shock, treatment of ... 539
Significance of the fontanelle ... 576
Silk or catgut in abdominal section ... 635
Silver nitrate ... 92
and ergotin in consumption ... 667
stains, to remove ... 476, 572
Simplicity in medication ... 127
Singing mice ... 20
Singultus ... 123, 316, 544
Sir Spencer Wells, death of ... 82
Skin affections, oil of cade in ... 58
blemishes, pigmentary ... 730
disease, locale of ... 288
diseases, dieting in ... 537
massage in ... 313
Skin-grafts, a substitute for ... 148
influences of climatic conditions on functions of ... 134
vitellin crême for the ... 604
Skull, fracture of ... 688
Sleeping apartments, disinfection of ... 697
best time for ... 160
Small doses frequently repeated ... 445
Snake-bite ... 847
bites, prevention of ... 667
Sneezing, paroxysmal ... 636
Soap as a lubricant ... 51
Sociologic aspect of gonorrhœa ... 718
Sodium bromide for seasickness ... 665
hyposulphite in malarial hematuria ... 697
phosphate and chloride in tuberculosis ... 635
salicylate, administration of ... 731
sulphate as a hæmostatic ... 603
vs. potassium iodide ... 186
Soft chancre ... 474
Solubility of coated pills, the ... 209
Some recent successful cases of brain surgery ... 97
surprises and mistakes ... 93
Sore throat, hot water in ... 633
Sourwood for difficulty in urinating ... 412
Spasmodic croup ... 699
Spasms and convulsions in children: apoplexy ... 314
Spelling, medical ... 49
Spermatorrhœa ... 282
Sphaletoxin ... 92
Spice poultice ... 507
Spiders and their ways ... 398
Spinal cord ... 478
curvature ... 474
disease, aneurysm simulating ... 448
irritation ... 659
Spirit-of-nitre fire ... 628
Spleen, removal and regeneration of the ... 640
wandering ... 312
Sprained ankle ... 473
Sprains, treatment of ... 26, 537
Stains, gunpowder ... 252
of silver nitrate, to remove ... 476, 572
powder, to remove ... 187
Staphisagria ... 92
Steel, to protect from rust ... 628
Stercorin ... 501
Sterility ... 288, 474
and gonorrhœa ... 640
in the female, causes of ... 516
matrimonial ... 512
of females ... 122
Sterilized milk ... 59

Stomach, cancer of....475, 763
foreign bodies in the.... 191
hot water and ulcer of 57
lactic acid in....96, 724
round worms in.... 544
Stone in bladder.... 256
root in hæmorrhoidal affections.... 540
Street noises....178, 637, 693
Stricture of rectum from dysentery.... 583
Strongylus in hares, an epidemic of.... 541
Strophanthus.... 380
Strychnine, antidote to.... 85
in the treatment of shock.... 539
poisoning.... 724
Suicide in Europe.... 117
notes on.... 555
Sulphate of soda as a hæmostatic.... 187
Sulphur and cream-tartar as a laxative.... 508
Sumbul.... 539
Sunburn and freckles.... 731
Sunday penalty of irregular feeding.... 31
Sundew for cough.... 89
physiology of.... 211
Sunstroke, prevention of.... 533
Superfluous hair, removal of.... 602
Superstition, medical.... 159
Suppuration of middle ear.... 259
Suppurative inflammation of the frontal sinuses.... 292
otitis.... 256
Suprarenals, function of the.... 638
Surgery, aseptic, in the country.... 174
cerebral—risks of.... 62
cocaine in.... 153
common-sense.... 411
conservative.... 653
of the country practitioner.... 607
of the lung.... 704
plastic vaginal.... 75
Surgical cases, interesting.... 588
report of.... 77
Surgical dressings, zinc glue for.... 763
treatment of cystitis.... 589
Suspension in tabes.... 442
therapeutic uses of.... 26
Suture of veins and arteries.... 127
Sutures.... 128
Swallowing of foreign bodies....124, 657
Sweating feet.... 475
Sweet Seidlitz powders.... 59
Swellings, pathological.... 572
Synaptic fibers.... 575
Synovitis.... 668
Syphilis and gonorrhœa.... 703
hospital contagion of.... 128
inherited—contagiousness of.... 685
nervous manifestations of.... 543

Tabes mesenterica, baryta iodide in.... 28
suspension in.... 442
Taka-diastase.... 506, 701
in dyspepsia and gout.... 249
in various gastric disorders.... 378
therapeutic application of.... 116
Tapeworm, remedy for.... 635
Tapping, extraordinary.... 189
Tartaric acid to remove blood-stains.... 700
Tasteless quinine.... 92
Tattoo marks, to remove....540, 636
Teaching anæsthesia.... 256
Teeth, analgesic mixture for extraction of.... 27
Temperature, causes of subnormal.... 608
Testicle, tuberculosis of.... 250
Tetanus.... 729
carbolic acid in treatment of.... 757
cocaine for....252, 725
Texan (septic) fever, typical.... 495
"The Doctor".... 720
Therapeutic application of diastatic ferment.... 116
uses of suspension.... 26
Therapeutics, fin-de-siecle.... 115
Thread-worms....28, 444
Throat mirrors.... 380
powder.... 636
Thrombosis....59, 220
Thuja for seminal emissions.... 730
Thumb-sucking.... 245
Thyreoid, dangers of.... 537
extracts.... 441
in lactation, use of.... 378
treatment of the insane.... 510
Thyreoidin as a galactagogue.... 636
Thyreoids, desiccated, cretinism treated by.... 268
for fibroids....374, 508, 597
in obesity.... 154
Thyroid, functions of the.... 766
Thyroidectomy, changes in the blood after.... 639
Tinea favosa....475, 764
Tinnitus.... 412
Tinnitus aurium, atropine in.... 476
Tobacco and consumption.... 507
epilepsy from.... 224
habit, cure for.... 658
Toe-nail, ingrowing.... 219
To estimate the dampness of a house.... 127
silver aluminum.... 725
Tonsil, chancre of the.... 65
malignant disease of.... 192
Tonsillitis....188, 507
and quinsy.... 240
croton oil in.... 28
follicular.... 540
gargle for.... 604
Toothache.... 443
and neuralgia, hot water in.... 633
Tooth extraction, painless.... 540
To render fabrics incombustible.... 84
Torticollis.... 84
Toxicity of perspiration.... 564
Toxic symptoms.... 469
Trachea and larynx, fractures of.... 32
Tracheal membrane, effect of drugs on.... 442
Tracheotomy in emergency.... 700
Trachoma and granular conjunctivitis not synonymous.... 102
irritating effects of natural gas upon.... 261
Transillumination and maxillary abscess.... 314
Trephining.... 220
Triticum repens in urinary disorders.... 763
Tubercular disease, necessity of new methods of early diagnosis in.... 460
meningitis, baryta iodide in.... 28
Tuberculin in dermatology.... 767
Koch's researches on.... 271
Tuberculosis....176, 460, 635, 667
and expectoration.... 305
and malignant lymphoma.... 192
ferratin in.... 602
of bladder cured with nuclein solution.... 654
of rectum.... 239
of testicle.... 250
senile.... 543
shall the State treat it as contagious?.... 10
Tumor of kidney and liver, to differentiate.... 128
Tumors, vaginal.... 287
Turkish bath, the.... 186
Turpentine in mumps.... 508
in purpura hæmorrhagica.... 571
oil in acne.... 730
rosacea.... 636
Twins, the fertility of.... 765
Two unnamed diseases.... 481
Tympanites.... 731
Typhoid, alcohol in.... 506
Brandt method in.... 283
calomel treatment of.... 540
fever....508, 571
borne by water.... 458
medicinal and dietetic treatment of.... 230
the Woodbridge treatment of....27, 571, 761
Typhoid, less restricted diet in.... 313
perforation, section for.... 127
relapses in.... 565
without pyrexia.... 128
Typho-malarial fever.... 532

Ulcer, chronic.... 156
of stomach, hot water and.... 57
Ulcers, nasal.... 540
of cornea.... 27
treatment of by oxygen.... 763
varicose.... 539
Umbilical hernia, heart in.... 96
in infants.... 442
Umbilicus, lack of.... 224
Unexpected effects of bromides.... 90
Unmarried physicians.... 623
Uræmia.... 666
retention of chlorides in.... 480
Uranium nitrate in diabetes.... 698
Urates in a new rôle.... 273
Urea in cirrhosis.... 156
Ureter, catheterism of, in male.... 570
Urethral fever.... 730
Uric acid diathesis.... 586
influence of drugs on excretion of.... 185
origin of.... 575
Urinary difficulties of old men.... 187
incontinence....28, 59, 731
phosphates, diagnosis of pregnancy by.... 319
Urinating, sourwood for difficulty in.... 412
Urine, cloudy.... 681
detection of pus in.... 160
examine before operating.... 220
green.... 469
Useful book, a.... 753
Uterine appendages, results of removal of.... 62
cancer, lactic acid in.... 698

Uterine deviations, diagnosis and treatment of 609
disease 288
fibroids, thyreoid extract for 508
sound, the 320
tonic and hæmostatic, a new 90
Uterus, malignant disease of 640
mimic power of the 640
prolapsed 576

Vaccination, excessive—inflammation from 313
Vaginal cystocele, operation for 512
examination of the unmarried 416
injections, for 635
nascent chloroform in 283
Vaginal suppositories 476
surgery, plastic 75
tumors 287
Vagina, poisoning by arsenic in 281
Vaginitis 284, 412
seborrhœic 512
Vagus, anæsthesia induced by compression of 574
Vale 753
Vanillin 693
Varicocele 380
Varicose ulcers 539
veins 58, 123
Veins and arteries, suture of 127
prostatic plexus of 608
Venery, excessive 571
Veratrum viride 89
Vermiform appendix, a rare condition of the 351
Version in prone position 96
Vertebrates, origin of the 193, 225
Vertigo, anæmic 692
Vesication produced by cocaine 601
Vinegar as a hæmostatic 154, 506
Visual illusions 288
Vitellin créme for the skin 604
Vivisection 693
immorality of the movement against 605

Vomiting and abdominal surgery 256
in phthisis 411
large masses of cancerous matter 317
of cancer of stomach, a remedy for 475
of pregnancy 444, 729

Wall-paper, varnished 659
Walls, to waterproof 604
Wandering spleen 312
Warts 188
cause of 160
Warty growths on genitals 124, 315
Water-borne diseases 458
Water for hypodermatic purposes 569
in therapeutics 187
some uses of 633
standing—danger of 544
supply, the procuration of 716
What is it? 500, 563, 656, 691
Whooping-cough 58, 90, 123, 218, 307, 508, 762
wild thyme in 59
Why do criminal abortionists go unpunished? 721
doctors make mistakes 122
public baths are essential 477
Wilde's incision 283
Wild thyme in whooping-cough 59
Wine and the sacrament 688
Woman and the bicycle 16
Woodbridge treatment of typhoid fever 27, 571, 761
Worms in dogs 603
round, in stomach 544
Wounds, some curious 479

X-rays and calculi 303

Yerba santa 250

Zinc glue for surgical dressings 763
oxide with carron oil 634

The Medical Age.

VOL. XV. DETROIT, JANUARY 11th, 1897. No. 1.

Original Articles.

GALL-STONES.

BY E. R. AXTELL, M.D.

In the past eighteen months I have seen ten cases of gall-stones, and have in addition made autopsies on five persons who had stones in their gall-bladders.

Case 1.—Mrs. B——, aged 50, came to Colorado two years ago for asthma, when her malady became more paroxysmal than before, some of the attacks being very severe.

She had an attack of hepatic colic five years ago, and her first attack in Colorado occurred about twelve months since and was a very severe one. After a few attacks, none of which were attended with jaundice, I determined to test the efficacy of olive oil, and gave one pint in two doses. The accompanying illustration shows some of the concretions passed after this dose,—in all she passed about thirty such. Her gall-bladder is enlarged, painful, hard, and undoubtedly full of stones. I have advised an operation, but to this she will not consent. She is taking phosphate of sodium and an occasional dose of turpentine, and has not had an attack of colic for three months.

Case 2.—Mrs. S——, an elderly lady who was in the best of health, and who had never had any ailments, was suddenly taken with an attack of hepatic colic which required two grains of morphine hypodermatically to control the pain. Some jaundice followed, but the stone was not found.

Case 3.—Mr. H——, aged 65, gave a history of three attacks of hepatic colic, each attack lasting a day or two at a time, followed by slight jaundice, and each by a discomfort in the right hypochondrium which lasted for weeks at a time.

Case 4.—Mr. F——, aged 26, gave an extended history of lithiasis with the many peculiar symptoms of that disorder. He was seen by me while passing a gall-stone, and complained most seriously of the pain characteristic of this trouble in the small of the back just under the floating ribs. I had the bowel movements washed for a week after his attack, and he passed on the fifth day a stone weighing twelve grains.

The other cases were simple attacks of hepatic colic, and presented no points demanding detailed report. All the attacks were the first experienced by the patient, except in one instance; all were under observation for several weeks, and as far as I know have not had any return of their trouble.

Five cases of autopsies are most interesting. The pathological record of Mrs. H——, from whom a large light stone was taken, was in detail as follows: Universally adherent pleuræ, both being completely occluded by old adhesions; marked fibroid pneumonia at base of the right lung; fresh pericarditis with rupture of the right coronary artery, the first pathological specimen of this kind which I have ever seen. There was an interstitial nephritis of both kidneys, and a goose-egg-shaped fibroid of the uterus which was calcareous. The stone which she had in the gall-bladder was made up of cholesterine; during life she presented no symptoms of stone in the gall-bladder. Stones like this are usually found in the ducts, but this was found in the cavity of the gall-bladder.

Mrs. G——, aged 55, after fifteen months of illness with symptoms referable to the gall-bladder, liver, and stomach, suffered an exploratory operation and a carcinoma of liver was found. She lived six weeks after the operation. At the post-mortem 341 stones were found in the gall-bladder, and the carcinoma was discovered to be primary with the liver, one of the large nodules pressing on the cystic duct, but not occluding it. These stones were made up largely of cholate of lime.

Mr. F——, aged 35, was a patient at the County Hospital, and died of tubercular meningitis and tuberculosis of the left kidney; very little of his previous history was obtainable. At the autopsy a brownish mulberry mass was removed from the gall-bladder, made up chiefly of bile pigments.

Miss K——, colored, probably 30 years of age, a prostitute, suffered during life with evidences of gall-stone, but died of peritonitis. At the post-mortem I found an immense purulent salpingitis of the left tube, and a general peritonitis from rupture of this abscess. Three stones were found in her gall-bladder, their composition being cholesterine and lime salts.

The fifth case was one of carcinoma of the pylorus, with secondary involvement of the liver. The patient was a male of an advanced age, and the carcinomatous nodules pressed directly on the cystic duct as well as on the gall-bladder. The concretions consisted of inspissated mucus and lime salts.

These cases thus briefly reported are of no special value, but are of fair interest. If the ætiology of gall-stones is studied it will be found that causative factors are very few in number, and either: A catarrhal condition of the biliary passages (either of the common or the cystic duct) which by providing an excess of mucus favors the formation of stones in the gall-bladder; that this inflammatory catarrh, by lessening the alkalinity of the contained bile, causes cholesterine to be precipitated and probably an abnormal deposition of lime salts to take place; that the catarrhal condition, by blocking the passage to the bowel, produces stasis of the bile in the ducts or gall-bladder; that the gouty diathesis by its presence renders the deposition of lime salts easy; or, that pressure alone on the biliary ducts may cause deposition of bile salts by simple stasis in the flow of the bile.

With these clear ætiological factors before one, the indications for medical relief are clear and ofttimes efficient. I have long ceased to believe that these stones can be dissolved, and yet I do not believe to-day, as strongly as I once did, that many of these cases should be operated on.

The medical treatment that I have found most satisfactory consists of measures to promote free secretion of bile and its uninterrupted flow; aid in the solution of mucus, at the same time antagonizing the development of acids by administering an alkali; to overcome stasis; to regulate diet and get the duodenum aseptic, if possible.

Such treatment has of course only to do with the state following a history of the passage of a stone. There is only one treatment for the attack, and that is morphine with local applications. Where stones have already formed one can only hope to remove them and prevent others from forming. To get the best secretion and flow of bile, gentle exercise, such as horseback riding or massage of the abdominal muscles, is of service. It has been well said that "a horse is a good thing for the inside of a man."

We have in carbonate and salicylate of soda excellent remedies in early cases; ten to twenty grains will increase the flow of bile, will increase its alkalinity, and place the duodenum in a fairly aseptic state. With such measures many of the alkaline mineral waters are of service. Rich and fatty foods should be prohibited. Fat is emulsified by bile, and when bile is diminished in amount fat must not be taken. But little meat should be eaten, but vegetables should be used freely. Phosphate of soda is as good now as it was fifty years ago, and thirty grains night and morning can be taken for months at a time. Olive oil in large doses—six, eight, ten, and twelve ounces—will often be of service, as in the first case reported. Exposure and wet must be avoided.

Whether the peculiar combination of alkalies in the water in Colorado is responsible for the number of gall-stones which are seen here is a question I am unable to answer.

Denver, Colorado.

NAUSEA AND VOMITING OF PREGNANCY.

BY G. W. MOODY, M.D.

It is rare for a woman to remain free from gastric disturbance of some kind during pregnancy, vomiting or nausea being common with primiparæ, and many suffer therefrom in subsequent pregnancies. More frequently there is nausea rather than vomiting. There may be prolonged and frequent vomiting without serious consequences, or with only slight emaciation and loss of strength, but it is rarely so excessive and uncontrollable as to affect the patient's health or imperil life. It usually commences during the first or second month of pregnancy, yet Montgomery mentions a woman who was married on Monday, began to be qualmish on Saturday, and was delivered in nine months.

Nausea and vomiting vary much in duration; may continue two or three months, sometimes for a shorter period, sometimes longer, seldom to the close of gestation, and may subside for a time and return. Though primiparæ are, as a rule, more prone to such disturbances than multiparæ, it is not always so, inasmuch as a woman may have little or no gastric disorder in her first pregnancy, and yet be seriously afflicted in subsequent pregnancies, and *vice versa*. It is said that women in good circumstances and addicted to sedentary habits are more subject than those in the lower walks of life, because the habits of the former are more enervating and render them in greater degree susceptible to nervous impressions.

The mild form of sickness is most apt to be manifested early in the day and disappear as the hours advance, only to return again the next morning; or it may occur regularly or irregularly at other times in the twenty-four hours. The patient, soon after waking or rising, may vomit a small quantity of fluid containing mucus or bile; she may vomit soon after eating, or have to rise from the table and vomit, and return and finish the meal; she may even retain food several hours and then empty the stomach. She does not appear to lose appetite, and when the vomiting occurs between meals she wants to eat again soon. Neither does she lose flesh or strength, which evidences food sufficient for nourishment is retained and digested.

This state of affairs may continue for several weeks or months, when it suddenly ceases, generally perhaps leaving behind more or less gastric disturbance that continues to the end of gestation.

All are not so fortunate, however, since sometimes vomiting is more violent from the beginning, is long continued, or increases in severity. As soon as food is taken it is vomited; even liquids can not be retained. The appetite is lost, and there is loathing of food. This stage is thus described by Parvin:

> The tongue becomes dry, the gums spongy and bleeding, the breath offensive, thirst excessive, and the urine scanty and high-colored; the pulse is frequently 90 to 100 or more. The inability to retain food and loss of rest (for even the night gives no intermission, scarcely remission of vomiting) and the distressing nausea result in a rapid emaciation and loss of strength. The patient, necessarily confined to her bed, may faint upon attempting to stand or even upon sitting up; her face sharp, haggard, sometimes of a dusky hue, or oftener remarkably pale; her eyes sunken; the skin often cold and clammy; prostrate and almost utterly hopeless, she may be willing or eager, as relief from her prolonged and severe suffering, to welcome death, whose shadow seems to be resting upon her. Diarrhœa may occur, and hence the emaciation and exhaustion are more rapid and extreme. If the vomiting continues the grave symptoms become graver, fever is now manifested, and in some there is acute pain in the head and epigastrium. The emaciation is frightful and attacks of syncope are frequent. The third stage succeeds, vomiting ceases, but fever increases. The pulse is from 120 to 140 and is small and thread-like; mental disorder is shown in hallucination and delirium, and coma closes the scene.

Various theories have been propounded as to the cause of the sick stomach. Bennet believed it was caused by inflammatory ulceration of the cervix; Hewlet imagined it arose from malposition of uterus; and others attributed it to peri-uterine inflammation and adhesions. It is now admitted these or other lesions of the uterus and pelvic tissues may at times be important factors. Yet while the foregoing may influence and aggravate nausea and vomiting, the true cause is undoubtedly to be found in the development and expansion of the uterus. The growth of the organ causes increased pressure upon and irritation of the nerve filaments, which impressions are transmitted to the stomach reflexedly through the hypogastric and solar plexus. It is in

fact a hystero-nervous affection, due to exaltation of sensibility of uterine nerves. In some women, for like cause there is a disposition to gastric disturbance in a mild way at the menstrual period and also when suffering from various diseases and displacements of the ovaries and uterus,—all have witnessed cases where pressure upon an irritable ovary induces nausea, and often reflex vomiting is attendant upon irritation of other organs; the order of reflex action reversed is observed when cardiac, pulmonary, or cerebral functional disturbance, as manifested by palpitation, dyspnœa, and vertigo, are brought about by gastric irritation.

Nausea and vomiting usually subside about the middle of pregnancy, or a little before, when the uterus by its development becomes less firm and more yielding. About this time the organ rises from the floor of the pelvis and begins its encroachment upon the abdominal cavity. The change of texture incident to growth, etc., tends to give relief from pressure upon uterine nerves and from pelvic irritations generally, especially those incident to uterine displacements.

A primipara, aged thirty-two, had some gastric disturbance during first months of pregnancy which increased during third month; vomiting and nausea persisted at irregular intervals to the culmination of gestation. Severe inflammation of most of the pelvic organs and tissues several years before resulted in extensive adhesion. She became very much emaciated and reduced in strength. During parturition, just as the head reached the floor of the pelvis, complete uterine inertia supervened, which I attributed to loss of strength, and delivery had to be completed by aid of forceps.

Idiosyncrasies may have something to do with the nausea, and again women are naturally more prone to sick stomach than men. Some women suffer with nausea and vomiting in all sorts of pathological conditions, and primiparas are more susceptible than multiparas, because the uterus and pelvic tissues are less yielding; and further, after once undergoing the change of pregnancy the system becomes habituated to it, so to speak, and consequently less disturbed thereby. Where the woman suffers more in succeeding pregnancies than the first, the cause is probably to be sought in uterine lesions or malpositions which did not exist prior to the first parturition, and which are also due to the latter. Instances are reported where the vomiting did not cease even after abortion, and post-mortems have revealed unsuspected lesions sufficient to induce the phenomenon independent of pregnancy. This suggests the necessity for careful examination to ascertain if there are other causes than pregnancy in severe vomiting; thus there may be vomiting in pregnancy which is not induced by this condition.

Treatment must be based upon general principles. It consists chiefly in promotion of physiological functions, establishing proper diet, and the correction of existing pathological conditions, with the use of such remedies as are ordinarily beneficial. Constipation, diarrhœa and any disorder of the liver or kidneys must always be corrected. It is a prevailing opinion among women that they ought not to diet themselves for sick stomach of pregnancy, but experience convinces this is a mistake. Attention to hygienic measures with a diet of easily digested food will usually contribute greatly to the comfort of the patient, though there are of course exceptions where crude articles of food best agree with the stomach. Where the vomiting is excessive the diet should preferably be fluid, given in small quantities and frequently repeated. Milk with lime-water is best, but if this can not be taken, beef essence and extracts or raw eggs may be substituted; buttermilk will sometimes be retained and digested when sweet milk and lime-water are rejected, and koumyss is often a most excellent article. If the quantity of nourishment appropriated by the stomach is small, rectal alimentation should be instituted, and when called for the earlier it is begun the better: it may be necessary to depend altogether upon this method in order to give the stomach absolute rest.

To be sure there may be cases in which rectal alimentation cannot be satisfactorily employed, but I have never encountered such; indeed, pregnancy is usually favorable thereto as there is generally constipation. Among medicines, cocaine, menthol, atropine, chloral by enema, and morphine hypodermatically, or tincture of opium by enema, all

have their place. Of carbonated drinks, champagne and bicarbonate of soda with tartaric acid, in small and divided doses, are frequently effective. Tincture of iodine, of nux vomica, spirit of chloroform, or chloroform water, cerium oxalate, bismuth, hydrocyanic acid, minute doses of wine of ipecac, crushed ice, etc., all are good.—In fact, innumerable remedies have been recommended, from time to time, which goes to show how ineffective they are apt to prove in obstinate cases. If relief is not otherwise obtained, careful examination should be made to ascertain if there are local lesions, which should, of course, be corrected; cervical erosions may demand attention; Copeman advises dilatation by means of the finger; painting the cervix and also the cervical canal with solution of silver nitrate or with iodine, has proved beneficial in some instances.—But, of course, any manipulation or application must be made carefully and considerately, though risks along this line are warranted in extreme cases.—Various instances are recorded where attention to abnormal condition of the uterus has relieved severe vomiting. Vaginal suppositories of belladonna have been recommended, and injections of hot water are sometimes useful. Ether or chloroform spray to the præcordial region five minutes before taking nourishment has been tried. When all else has failed the induction of abortion or premature labor is to be considered as necessary to save the life of the mother, but such procedure should be determined only after wise counsel and mature deliberation: it is to be remembered that in addition to sacrificing the life of the child, abortion has its dangers to the mother.

Parvin relates a case where the woman, on whom abortion had been performed for the relief of vomiting in two previous pregnancies, was carried safely through to term in the third, though the conditions were even more threatening than on the former occasions; hence extreme care and caution is demanded in each case. Again, abortion should not be undertaken in the last stage when the patient is too much exhausted; here resort must be had to stimulants, anodynes, nourishment and artificial heat to the extremities.

Mrs. ——, aged 24, primipara, short neck, low stature, rather fleshy, sedentary habits, constipated; lived in affluence; when six weeks pregnant, began to vomit every day, which continued for three weeks with increasing severity. Was not able to sit up for several days. Vomited everything she ate and drank—even water—and frequently when nothing had been swallowed. Half a seidlitz powder was prescribed to be taken every three hours until bowels were moved, followed by a pill of cocaine and atropine three times a day an hour before eating; at same time the diet was limited to milk and lime-water, until the stomach was able to accept bread and cereals; then the food was increased gradually, but prudence exercised as to eating.

The second day she was sitting up; out riding the third. She did very well for about three weeks, when a severe attack supervened as the result of imprudence at the table, the irritability of the stomach increased until she was worse than before. She was now confined to bed, vomited excessively, and suffered uninterruptedly with nausea; could not retain a teaspoonful of water or the smallest quantity of crushed ice. Complained of pain in the stomach; epigastrium painful to pressure, respiration hurried and oppressed; pulse 140. Although giving the stomach absolute rest for several days, taking nourishment and anodynes and water by enema, her condition continued to grow worse until she began to take morphine and atropine hypodermatically. After a week, she ventured upon teaspoonful doses of milk and lime-water by the mouth, though alimentation was continued; a little later, tincture of opium, by enema, was substituted for morphine, and gradually reduced, and at the same time the nourishment increased, until she could again take solid food. There was no subsequent relapse.

During the early stage of the severe symptoms physical examination revealed decided flexion of the cervix, which I could not correct, and painting with tincture of iodine was of no benefit.

The subject may be epitomized as follows:

Gastric disturbance is common in pregnancy;

It is more common in primiparæ than in multiparæ;

Excessive, intractable vomiting in pregnancy is rare;

It may occur from the first to the last month of pregnancy—it is generally limited

to the first half, and more frequently occurs during the second and third months;

The pathological nature of the disturbance is hystero-reflex, an exaltation of sensibility of the uterine nerves incident to the development of the uterus, together with abnormal conditions and relations of the uterus and other pelvic structures;

The serious consequences attendant upon prolonged vomiting are due, chiefly, to exhaustion from lack of nourishment;

The treatment in the mild form consists in proper diet, with such remedies as are ordinarily beneficial in sick stomach. If these fail, local lesions and malposition should be sought after and corrected, if they exist; in intractable cases anodynes, absolute rest to the stomach and rectal alimentation. Premature labor or abortion as a last resort.

Shelbyville, Tenn.

PUERPERAL CYSTITIS.

BY W. H. SAWYER, M.D.

This most annoying and ofttimes serious complication of the puerperal state must, in the great majority of cases, be regarded as an infection, and like other septic conditions, theoretically at least, unnecessary. While traumatism of labor is an important causative factor, the irritation resulting from a solution of continuity and inflamed mucous surface, without an added infection, is usually mild and of short duration. When, however, by ready access or careless manipulation septic germs are planted upon a broken surface or an existing catarrhal cystitis, a suppurative inflammation may result, sometimes of a malignant character. A healthy bladder resists well any invading germ, but when impaired by disease or injury, or when the vitality of the vesical epithelium is reduced, it readily becomes the seat of purulent inflammation which by extension may involve adjacent structures, with disastrous consequences.

Rodsing, after elaborate research, concludes cystitis is a germ disease, and he classifies the bacteria found as non-pyogenic and pyogenic, the first producing decomposition of urine and inflammatory reaction, the second purulent inflammation.

The investigations of Reymond and others go far toward proving that pathogenic germs may gain access to the bladder without especial conveyance, and that many inflammations and irritations of this organ may be fairly attributed to this mode of infection. Reymond found in a number of cases of cystitis the same germs present as in a co-existing pelvic disease, and the relief of the pelvic lesion was followed by disappearance of the cystic inflammation. He also endeavored to show by experiments upon animals that germs introduced into the pelvis outside of the bladder walls produced cystitis, the same germs being present, though not found in the blood current of the pelvis.

In support of the theory of the easy accessibility of the bladder to bacteria, Wreden found in cystitis, occurring simultaneously with ulceration of the rectum, the same microorganism present in both. Garonsky demonstrated pathogenic bacteria in the otherwise normal urethra and reasons that these carried into the bladder may induce disease. Barlow also states that all the various forms of cystitis are of microbic origin, except that arising from administration of cantharides, and that inflammation is favored by retention, hyperæmia, and traumatism, each of the three causes being, however, powerless in itself.

That puerperal cystitis may occur by germ invasion without interference, is pretty clearly demonstrated; but experience proves that in the great majority of cases it is the result of careless manipulation. The symptoms of the disease in the puerpera do not differ in any essential from the usual catarrhal and suppurative inflammations except in occasional cases of exfoliation and gangrene and the tendency to extension; these graver conditions are indicated by profound prostration and higher temperature, and may terminate fatally.

To avoid as much as possible traumatism to the bladder and urethra in labor, and retention following, is of prime importance. That manual interference is fraught with so many risks makes retention more than a trifling annoyance, and induces a careful study of its causes and prevention. This much-discussed subject is most rationally explained by Swartz, who concedes but two

causes therefor, viz., lack of intra-abdominal pressure, and a swollen urethra; I would add to that an inability to control,—a simple nervous phenomenon.

Experience has shown that the necessity of interference is much lessened by prophylactic measures. Careful attention to diet, and moderate exercise, alternated by periods of rest in the recumbent position, frequent warm baths, the free injection of cold water, and regular action of the bowels, reduce the tendency to congestion of the pelvic organs and increase muscular tonicity and reparative power; besides (and most important too), let the patient acquire the habit of emptying the bladder while lying upon the back,—it is many times difficult for non-puerperal patients to pass urine while supine until accustomed to the position. Says Hirst: "Skutsch found that among twenty-nine puerperæ who had been managed in this way only eight required the catheter after delivery; while more than half in whom this precaution was not exercised required catheterization."

The catheter should not be resorted to until other measures, such as placing the patient upon a bedpan filled with hot water, the sound of dropping water, and the knee-chest position with pressure over the bladder, have failed; while using these means the danger of over-distention must not be lost sight of, and if the urine is not passed within twelve to sixteen hours following labor catheterization should be performed, but with the most rigid antiseptic precautions and careful manipulation. A soft instrument, new, and rendered aseptic by boiling, alone should be employed, as the danger of a hard, unyielding tube injuring the swollen mucous surface, *and making infection easy*, is great. Before using the instrument the parts should be made aseptic by soap and boiled water, and afterward by some antiseptic wash; the vaginal opening should then be closed by antiseptic gauze, and having the hand thoroughly cleansed and fully exposing the parts, the catheter, anointed with carbolized vaselin, may be passed with the minimum of risk to the patient.

Knowing that this care is not generally exercised by practitioners, but is often looked upon as troublesome and unnecessary, I want to emphasize the fact *that use makes all things easy*, and the sooner medical men accustom themselves to detail and care in carrying out the general principles of asepsis, the better for all concerned.

Winckel reports vesical inflammation in the Dresden House for Child-bearing Women as a rare condition, and attributes the freedom from the lesion to the aseptic care taken; and Skene says he fully endorses the teachings of this great authority, adding, "I have seen so much bladder trouble brought on by the careless use of foul catheters that I have come to look upon clumsy operators and unclean instruments as the most common causes of cystitis." Hirst speaks in the same emphatic manner, declaring it "is due in the vast majority of cases to a careless, clumsy, and ignorant use of the catheter."

The treatment of cystitis following labor does not differ from the treatment of the same inflammation occurring under other circumstances. While a great number of remedies given in various ways have been suggested, the indications to be met are asepsis, drainage, and rest to the bladder, with a bland and antiseptic urine flow.

By washing out the bladder once in six to eight hours with a non-irritating antiseptic solution, good drainage and relative asepsis may be maintained. For this purpose a solution of boracic acid, peroxide of hydrogen, or bichloride of mercury, 1-to-30,000, may be used.

One who has had to do with one suffering from a nervous bladder habit must have been driven to his wits' end to find some means to give rest and relief from pain and tenesmus. Hot applications to lower part of abdomen and perineum, a belladonna and opium suppository placed in the rectum, and potassium bromide internally, will be all that is required in many cases. When the urethra is involved, much comfort is given by instilling, by means of a common dropper, a four-per-cent. solution of cocaine, resorting to morphine only when forced to; the same aseptic care to be taken in every office.

Salol or boracic acid, with supportive treatment when demanded, and an exclusive milk diet and free use of water, are indicated.

Hillsdale, Michigan.

SOME CASES OF INTEREST IN OPHTHALMIC SURGERY.

BY GEORGE CLEARY, M.D., DENVER, COLO.

Case 1.—L. M——, aged 35, a farmer, while engaged in cleaning out an irrigating ditch, was struck in the left eye by the point of a stick. The intense and continuous pain in the eye, and over the corresponding side of the head and face, caused him to seek my advice ten days later. The lids were moderately thickened, the ocular conjunctiva very much congested. There was a traumatic cataract, with swollen lens matter in the anterior chamber, occupying the outer and lower third of that space, and a large ragged ulcer in the outer side of the cornea; vision-shadow of hand. I prescribed atropine, iodoform ointment, and hot fomentations for the eye; ten grains of calomel to be taken at once, and morphine for pain during the night.

The next day the ulcer seemed cleaner and more superficial, but spreading upwards; on the following day, it was healing, and the spreading had stopped. The deposit of lens matter was adhering as a thick flake to the posterior surface of the cornea; pupil dilated. He felt very comfortable and was improving rapidly; insisted upon going home (living in an adjoining county), but promised to return in a couple of days. I did not see him again, however, until the 18th of the month—six days after the last report. Pain had returned as severely as at first; eye again red and photophobic; ulcer, however, entirely healed; eye tension, + 1; temperature, 99°. While at home he had attended to his irrigating ditches and got his feet wet. I applied to the temple an artificial leech, ordered eserine and hot fomentations to the eye, and gave him a mercurial purgative. Not getting any perceptible relief, ice cloths were substituted for the hot applications. There still being no abatement of the tension, pain, and other symptoms, on the 21st under cocaine I performed an iridectomy upwards. Great relief followed the operation until the 24th, when some pain returned to the eye; tension, +. Used mercurial inunctions night and morning, and for the eye eserine and fomentations. From now on the case progressed favorably and rapidly, tension became normal, and the felt-like lens matter in anterior chamber entirely disappeared. Complete absorption of the lens followed, with restoration of vision.

There is a prevailing opinion that a lens exposed to the solvent action of the aqueous humor by rupture of its capsule may go on to complete solution up to the twenty-fifth year of life, and that after this period the nucleus of the lens becomes impervious to its action. From personal experience heretofore, as well as in this case, I am convinced that the age can be considerably extended, and still complete absorption in such cases be obtained; and I am borne out by some recent writings on the subject. It may be well, also, to recall the decided abatement of all the active symptoms during the first part of treatment, and the marked and permanent relief afforded following the iridectomy; and finally, the absence of iritis throughout the progress of the case, the swollen lens matter having been for so long a time in contact with the iris.

Case 2.—H. C——, aged 18, in 1889, while a member of the National Guard, and engaged in a sham battle on the Fourth of July, received in the face the discharge of a blank cartridge, fired at a distance of a few feet. Besides powder marks on his face, I found a small perforation in the lower part of the cornea. The lens was opaque, but with no exudation of lens matter. On closer inspection, a foreign body was visible lying embedded in the iris, in front of the perforation in the cornea. I performed an iridectomy, removing that portion of the iris in which the foreign body was lodged. Placing the removed segment of iris in water, the foreign body was found to consist of two ciliæ, united at their roots. The lens cleared up by absorption without any further trouble, and the eye made a good recovery.

I considered this to be a very novel case at the time, from the fact that two eye-lashes were driven through the tough cornea and lodged in the iris; but during the preparation of this article I found in the *Archives of Ophthalmology*, October, 1894, and January, 1896, two other cases somewhat similar. In one, four ciliæ were carried into the eye by a wire in baling hay. In the other case, the patient was struck in the eye by a scissors, several lashes being carried into the anterior chamber; at first they lay on the anterior capsule of the lens, but later on the posterior surface of the cornea, and finally they escaped through the corneal cicatrix.

Case 3.—A. W——, a child eight months old, while lying on the nurse's breast, by a sudden movement of the head struck her

right eye against the point of a large pin. I saw the child February 2d, three days after the accident, and found a ragged, elongated, perpendicular wound in the outer side of the cornea; the inner structures of the eye had apparently escaped injury. Pupils were well dilated. Antiseptics and atropine had been used by family physician. I ordered boracic-acid solution and hot fomentations, with instillations of atropine every two hours. Next day there was considerable infiltration surrounding the wound, and a collection of pus in the anterior chamber. February 7th, pupil contracted; whole cornea hazy; infiltration in corneal substance more dense, and surface of cornea bulging; palpebral and ocular conjunctiva much congested; child evidently suffering a good deal. Under an anæsthetic, I passed a cataract knife through the base of the abscess cavity, performing the old Saemisch operation. This relieved pressure, and at the same time evacuated the pus in the anterior chamber. I then dusted iodoform on the cornea, after cleansing the wound, and continued the fomentations and atropine. I found on the following day that the ulceration had extended upwards, but the child slept fairly well and nursed better than theretofore. I kept the corneal incision open by daily passing a probe between the lips until February 18th, when extension of ulcer had ceased and healing commenced at its edges; cornea clearing; pupil much contracted. By March 1st, the whole ulcer had closed over and all irritation of the eye had disappeared, while the child's general condition was that of perfect health. On account of great haziness of the cornea throughout the latter part of the disease, I was unable to positively decide whether or not the iris had been implicated and was, therefore, anxious about the formation of adhesions, the pupil having remained persistently contracted; I was also apprehensive lest a large corneal scar would remain. As soon, however, as irritation had disappeared the iris responded to the action of the mydriatic, presenting a widely dilated pupil, and in time the cornea cleared up wonderfully. A month after the last date scarcely a trace of corneal opacity could be distinguished.

This case, I think, is worth reporting because of the nature of the traumatism; then the rapid formation of pus in the anterior chamber, and the great extension of the ulceration, even after the corneal incision; and lastly, the happy termination of the disease, leaving a most useful organ with its beauty unimpaired.

Case 4.—Was called to see Mr. I. T——, aged 50, the morning after the accident which had befallen him. I found the patient in the midst of his family, with his head tied up and one eye obscured by a bandage. His physician told me that Mr. T—— had struck his eye against the back of a chair. I never got any other information as to how the accident occurred, but his appearance indicated that he had recently been under the influence of stimulants, and, when the eye was unbandaged, the conclusion I drew was that his eyelids had been in forcible contact with a butcher's meat hook. I found that both the upper and lower lids, still united at the angle, had been torn from within outwards; in the upper lid, the tear extended through its whole thickness nearly to the outer canthus. The upper border of the tear in the integument reached nearly to the brow and followed the curved direction of the latter; there was also a perpendicular tear of the conjunctiva, meeting the horizontal one at about the center of the lid and running from its free border so as to allow the conjunctiva on the nasal side of the rent to hang down below the free edge. The lower lid was similarly lacerated, but the tear only extended to about its center. The detached nasal end of the upper lid was purplish. The attending physician had already put in three sutures, attaching the upper detached lid above. The inner portion of the flap was curled up on itself, and displaced downwards, and the lower puncture was occupying a position close to the outer edge of the tear in the lower lid. I did not disturb the two outer sutures, but removed the inner one; the upper lid was unfurled and put in position by careful manipulation, securing it by three more sutures. The difficulty to overcome was to replace the prolapsed conjunctiva, but I finally succeeded by arming a thread with two needles, passing one through the outer and upper torn conjunctiva, carrying the latter on the point of the needle to its place, and then passing the needle out through the thickness of the lid; the other needle was passed in a similar way half an inch to the inner side of the first, and parallel to the free border of the lid; the ends of the thread were then drawn gently home, and tied externally. The lower lid required four sutures. The whole thing when finished had a decidedly decent appearance. The parts were warmed and cleansed with hot bichloride solution, and finally dressed with iodoform ointment and cotton. The whole wound united perfectly, and the final result far exceeded expectation, leaving scarcely a trace of the accident visible.

SHALL THE STATE TREAT TUBERCULOSIS AS CONTAGIOUS?

BY F. T. NYE, M.D.

Delafield and Prudden tell us that persons are said to have tuberculosis when there are going on in the body inflammatory and necrotic processes accompanying and dependent upon the presence and growth of the tubercle bacillus; also that the lesions we regularly find are: miliary tubercles, diffuse inflammation of various kinds with cheesy degeneration of the inflammatory products, the ordinary products of inflammation—pus, fibrin, serum, epithelium, granulation tissue and connective tissue.—Associated with all these lesions tubercle bacilli are to be found.

This brief description gives also an accurate statement of the causes. Actual observation, careful study, clinically and otherwise, based upon several years' experience, satisfy me that the tubercle bacillus is the direct cause of tuberculosis.

Admitting the foregoing to be fact, then the vital question arises, how can we obviate or control these microbes, or stay the spread of this dread disease? There is always danger from infection by these bacilli lodging in any part of the body, or—as has been recently shown—from transmission from mother to child.* And it is not always absolutely necessary for their development that they be located in any definite part of the body or in just such media as are most favorable to their development.

Admitting these facts to be incontrovertible, is there a physician who would not desire some definite method for their control? How can this result be reached otherwise than through State or National boards of health?

Prudden recently offered some very wise and efficient suggestions:

> It is unfortunate to speak of tuberculosis as contagious because upon the whole most people associate with the word "contagious" a degree of communicability which is far higher than properly belongs to tuberculosis. If we were to speak of tuberculosis as a communicable disease, keeping the word "contagious" for such diseases as smallpox, scarlet fever, and other like infectious diseases, we should avoid in such public measures as we have in mind the danger of unduly frightening people and setting up a more or less justifiable opposition. It is certainly communicable, and largely through the sputum, but it certainly is not so readily communicable as are the exanthemata, and more than this, under a proper sanitary regime, its degree of communicability can be reduced practically to nothing.
>
> If boards of health would straighten out their nomenclature a little, dividing the infectious diseases into the communicable and non-communicable; and then divide up the communicable diseases, which include nearly all of the infectious ones, into those which are readily communicable and those which are not readily communicable, reserving the term "contagious" for those which have been indicated, then there would be a proper basis for work without risk of doing harm.
>
> This is a line along which the New York Health Board, as well as many others, have been working.

Perhaps the greatest obstacle to overcome in the carrying out of measures of quarantine is public sentiment. This same sentiment requires all smallpox patients to be sent to a pest-house—except in the great State of Wisconsin—though with rare exceptions, such patients can be of danger only to the ignorant who have refused vaccination. Public sentiment checked immigration and commerce in the effort to quarantine against cholera; yet this same sentiment would characterize as barbarous the isolation of consumptives, with every provision for their comfort, in hospitals so arranged as not only to prevent the spread of the disease, but to afford every possible chance for the relief or cure of their inmates. Many things may still be done to limit the spread of tubercular disease without removing the consumptive from his customary associations. Fortunately, in the vast majority of instances, we can restrict our attention mainly to the expectoration.

The question of transportation is a vital one. I believe a sleeping- or palace-coach on transcontinental trains a dangerous source of infection, as a considerable proportion of travelers are consumptives seeking warmer or drier climates, while a nearly equal number are persons predisposed to the disease but not yet infected. Imagine the two classes

---

* Lahman reports a case of congenital tuberculosis where the mother died of tubercular meningitis; the child lived but twenty-four hours. In its spleen, lungs and liver were found nodules resembling tubercles, and containing tubercle bacilli in large numbers.

mentioned spending from three or four days to one week in the confined air of one of these cars occupied as well by other reasonably healthy individuals, or spending a number of months at a hotel which is practically a hospital for consumptives. How many physicians are in the habit of advising their patients to seek health in some other more salubrious or favorable location, either on this continent or abroad, thus materially and certainly assisting the spread of the germs of this disease—a fact that is gradually developing an opinion in certain localities that is not at all favorable to its continuance. It will not be long before a strong protest will be urged against such conditions. Wisconsin, California, New Mexico and Colorado are already beginning to realize the evil effect upon their own inhabitants, upon their own security from the disease itself, upon their own prosperity financially, and see plainly the result of such action is the giving up their own prospect of health or longevity for the benefit of the health of others. Can physicians as exponents of sanitation maintain their mental equilibrium and advocate such a policy with the expectation that the people will bear with them and not exercise their own mental powers? I think not!

Again there is absolute necessity for the isolation of any affected member of a family —if for no other reason than that the question of longevity is of very great importance; also the marrying or giving in marriage and the perpetuation of weakened constitutions until at last the question becomes one of simply "survival of the fittest," or the result follows of entire blotting out of a family.

I believe all citizens have an inherent right to the enjoyment of pure and uncontaminated air and water and soil; that this right should be regarded as belonging to the whole community; and that no one should be allowed to trespass upon it through carelessness, avarice or even ignorance.

These propositions are recognized by the public, but they are not enforced, and the reason is that the public mind is not sufficiently aware of the dangerous elements nor the connection between filth and disease; the public is not convinced that undrained land is unwholesome to live upon.

Beloit, Wisconsin.

MEASURES TO PREVENT PHYSICIANS FROM CONTRACTING CONTAGIOUS DISEASES WHICH ENTER BY THE AIR PASSAGES.

BY J. J. HOWARD, M.D.

In order best to guard against the specific cause of diseases which enter by the air passages, it is needful to know much of their ætiology. As regards the most important of these diseases this knowledge is now available. Some degree of resistance to the successful entrance of specific diseases is the rule in all healthy human beings, and this is of at least two kinds: the resistance of an unbroken surface, and the resistance of the normal tissues and fluids of the body, including the destructive power of the blood-serum on the microscopic cause of diseases. Atmospheric temperature and other conditions of the atmosphere have to a great extent controlling influence over the entrance of most of the specific diseases, for simply lowering of temperature of the body is sufficient to cause some animals to contract a specific malady to which they otherwise would remain immune; thus fowls have been made to contract anthrax by standing in cold water after inoculation.

It should be generally known that, as a rule, all inflammatory diseases of the throat and air passages are increased by exposure to cold: the same is true of all specific maladies that enter the body by way of the lungs. Thus diphtheria is most prevalent in the autumn and winter months, which evidences that exposure to cold increases the danger; hence, as a prophylactic measure, the physician should avoid exposure, guard against chilling the body, exercise great care during examination of patients by guarding the face with a rubber-tissue mask, avoid inhaling the infected breath, and use every known means to guard against infection by keeping the secretions of the mouth and throat healthy by free use of gargles and cleansing throat, face, and hands with a disinfectant solution. When visiting infectious diseases like diphtheria and scarlet fever, he should wear a rubber coat and thus avoid becoming a carrier of contagion.

For the prevention of pulmonary tuberculosis, and other tuberculous diseases, the

most important measure is the disinfection of all sputa of consumptive patients; if this could be completely accomplished it would probably go far toward lessening the risk of the physician and the entire prevention of the disease. To avoid the liability of inhaling the dust of rooms occupied permanently or temporarily by consumptives, an important measure is the providing of cuspidors containing a strong disinfectant. Most important of all, however, is the ventilation of all occupied rooms, which should be so planned that the movement of air should be constantly downward, and out at the floor level; this reduces to a minimum the danger of infection through sputum which has fallen on the floor or carpet. It is apparent that a physician can only control to a limited extent the ventilation of rooms into which he goes, hence such measures are proper subjects for consideration by state, local, and national governments. Much exposure to cold and damp favors the occurrence of consumption; it is also apt to follow pneumonia and other inflammatory diseases of the air passages, which themselves follow exposure to cold.

Tubercular diseases are wasting diseases, and there seems to be reason for believing that an important factor in their prevention is the maintenance in perfection of the quality of the blood, especially of its albuminous constituents,—good food and plenty of it, avoiding all extremes of exposure to cold and fatigue. The importance of outdoor life for the prevention of consumption is generally accepted. How and why it is effective has not been much dwelt upon, but the increase of appetite induced is well known, as well as the fact it promotes oxydation of effete matters of the body. Theoretically, consumption, which is still the most important cause of mortality, is next to smallpox one of the most easily preventable diseases, and the next quarter of a century should see it lessen in importance as a cause of death until it takes its place alongside of variola. Something of the importance of what this implies to mankind throughout the world may be inferred from a comparison of the present mortality rates from consumption and smallpox.

It has been estimated that the typhoid infecting germ finds its entrance to the system ninety-nine times in a hundred through drinking-water, but that it may be conveyed by the air is a well established fact, and is mentioned by many authorities. Bouchard mentions a man who contracted typhoid at Ulm, and returned to his native village, where there had not been a case of the disease for years. His evacuations were thrown upon a dung heap, which was removed several weeks later by five men; of these five, four were attacked with typhoid, and the fifth with intestinal catarrh and tumefaction of the spleen. The dejecta of this set of patients were thrown on another dung heap, which was removed nine months later by two men, both of whom contracted typhoid fever. I wish here to call attention to the fact that this mode of infection does not imply that the disease germs are inhaled and enter the system through the pulmonary mucosa: it is much more probable that they adhere to the buccal or pharyngeal mucous membrane, and are swallowed with the saliva or the food, and find their nidus in the ileum.

The measures of individual prophylaxis are of the simplest description. Soiled as well as unsoiled linen should be boiled or destroyed by fire. For the hands of physicians and nurses, the best disinfectant is thorough washing with soap and water, followed by rinsing with a solution of bichloride of mercury. A certain degree of ostentation in performing such ablutions is pardonable to physicians, if not actually enjoined upon them, for the sake of example to nurses and attendants.

For the prevention of pneumonia it is probable that measures similar to those for the prevention of tuberculosis are important. As to the agency of microbes as an exciting cause of pneumonia much proof can be furnished, but it is not within the scope or the purpose of this paper to establish the specific cause. Taking for granted its specific cause it must be held that a solution of continuity in the mucous surface of the respiratory tract is a necessary antecedent. Bronchial cough and catarrh is the most common predisposing cause, but inhalation of an irritating vapor, gas, or dust, and violent injury of the pulmonary structure in any manner, are also efficient. The common atmosphere near the ground habitually carries in suspension the necessary micro-organisms to excite inflam-

mation in lungs susceptible to their action, and such susceptibility is most usual in the season of coughs and colds. One or more cases of pneumonia in a dense population, where coughs and colds are prevalent, may then light up an epidemic of this disease. That condition of the respiratory tract which renders a person liable to pneumonia probably exposes one to the infection of pulmonary consumption wherever the bacillus tuberculosis may be present in the atmospheric dust; and this accords with the frequent sequence of phthisis to pneumonia, the bacillus tuberculosis being slower in propagation and growth than most other disease germs. Avoiding exposure to cold, the excessive use of alcohol, improper nourishment, bad hygienic surroundings, nervous shock, severe injuries, and the other causes that depress the vital forces, prove the best of prophylactic measures. It is manifestly a duty to study well the cause of all infectious diseases; the instinct of self-preservation in all human beings is so strong that it would seem unnecessary to inculcate it, but unfortunately the self-satisfaction of ignorance is equally strong, especially when it relates to matters of hygiene, and therefore improvement in prevention of infectious diseases, even among physicians, can only be reached when hygiene is thoroughly taught in schools and colleges, and recognized as the most beneficent of the sciences.

Columbus, Wisconsin.

PERSONAL EXPERIENCE WITH PHTHISIS.

BY E. B. WARD, M.D.

It was at a meeting of the Michigan State Medical Society some two or three years ago that Professor Gibbes, of the University of Michigan, read a paper on a certain mode of treatment for phthisis pulmonalis, and although the treatment was new to many present the subject was old and ever interesting. The discussion which followed was of a familiar sort, and especially interested certain ones present who felt a personal dread of the disease and were anxious to learn anything new on so important a subject.

At length the talk, which had been somewhat cumulative in its character, subsided, and the meeting had reached a position that stationary engines sometimes acquire, viz., got "stuck on the centre," so Doctor Carew, who occupied the chair, requested Doctor Gibbes, as usual, to close the debate. The Doctor, however, declared that as no one had disputed his statements, he had nothing further to offer; whereupon the writer, in order to pull the debate off from the centre and start the machine again, deliberately declined to "take stock," as it were, in what the Doctor had read, and was immediately called out.

At that time I endeavored in a poor weak way to relate my own experience with the disease during the twenty odd years previous that I had contended with it in my own person, but I was so disconcerted by what seemed to me the unseemly levity of the audience, that my remarks were cut short, and at my request expunged from the records.

It has been my intention ever since then to place them in cold type some day, so that they could not be blown away, as even now some of my listeners there have gone to the "bourne" unbenefited by what they should have heard.

There is nothing like a personal experience to capture an audience or please a patient, from a head-end collision with a bicycle to an attack of *tic douleureux*. If you can only sit down by the bedside and tell the patient truthfully that you have had his disease, no matter what it is, and have survived, it inspires hope and gives him renewed vigor to battle with death, for without hope the heart fails.

Being of a strumous diathesis—whatever that may imply—I was early affected with pulmonary and bronchial troubles, though there was no distinctly traceable hereditary tendency to consumption. But after practicing medicine in a rough and rugged country for about ten years, I became the unwilling victim of consumption as the result of frequent exposure to the weather at untimely hours, coupled with irregular meals and insufficient rest. Emaciation took place, followed by night sweats, cough, and profuse expectoration, which brought me to a condition of utter uselessness, to say the least. This was in the winter and spring of 1872, and on the advice of some one, I took the regulation remedy of the time, which was cod-liver

oil and whiskey. Tubercular bacilli were unknown then—that is, to me—and if they had been, the probabilities are I would have done just as I did, in the hope of drowning them out with whiskey, or feeding them with cod-liver oil instead of lung tissue. Be this as it may, I took gallons of the odoriferous oil, and washed it down with copious draughts of more or less poisonous whiskey, and it was while thus engaged that a friend of mine who also had the disease—he died the following year—induced me to accompany him to the northern lake region, where we spent a good share of the summer idling around from one place to another, doing most of the upper lake country. Meanwhile I stuck to the remedies mentioned with a degree of pertinacity and perseverance only known to drowning men and candidates for office. My companion did the same, but in less quantities and in a half-hearted manner, which is often the ruination of the health-seeker. Further, he had a fairly good appetite, while mine was trifling, which was due, to some extent at least, to my medicines. Finally we came home by way of Milwaukee, and crossed the lake one fearful night when it seemed that the old craft, every time it got in the trough of the sea, would certainly and surely go down. I was rather in hopes it would, for I felt I had much rather drown then, than die with consumption later on. We arrived in Grand Haven, however, much to the surprise and joy of people on the wharf, who had expected our boat to follow the "Ironsides," a companion craft that went down with all on board a few nights previous in a similar storm.

On arriving at home, as I had sold my horse previous to starting, I wandered aimlessly around the streets for a time; but as the weather got cooler my appetite returned somewhat, and I purchased a span of "flyers" and took to driving again. My cough and night sweats gradually subsided, and dropping from my remedies to more substantial food I was soon spinning over the roads again, gaining in flesh and spirits—not *spiritus frumenti*—until my weight had returned and health was restored.

During the years which followed, being more or less subjected to exposure to the weather which pertains to country rides, I was not infrequently the victim of colds which threatened a return of my old complaint, at which times I resorted to the same remedies that I had used before, always to be discontinued when the need of them had passed. However, I made no secret of my remedies—for that would be very unprofessional—but I never conceived a habit, or ever frequented saloons or other places where liquor was sold unless when away from home, when I did not hesitate to "take my medicine" if I thought I needed it, but never carried the matter to extremes, though I had acquired an immunity to its effects, and could swallow enormous quantities with impunity. In the meantime—and it was a decidedly *mean* time—I had further acquired a well developed reputation for being a drunkard in a general way, for my telltale breath was a far more convincing proof than either actions or words could supply. But I worried along as years passed, vibrating betwixt the inward consciousness of rectitude and the obloquy which attaches to the chronic inebriate—though no one ever saw me "the worse for liquor"—until I acquired an utter disregard for individual sentiment on that subject. Even as a small lad, when I was permitted to go to town with my father at long intervals, I lounged around on dry goods boxes, pale and fearfully sick with one of my inevitable headaches—being from my earliest recollection to the present time subject to migraine—and people passing by would notice my appearance and remark, "Guess that boy has had a drop too much." So in after life it doesn't disgruntle me to have my professional brethren and other quondam friends remark that "he is a good physician, but it's a pity he drinks."

Yes, I've had good professional men, and others, remind me of the certainty of death and the probable brevity of life, who have themselves been "mouldering back to dust" so long that the mounds which covered their graves have disappeared; and I am here to tell the tale. Why, I have looked death in the face so often that it has no terrors for me—but I digress from my subject.

This condition of colds and recoveries continued with varying success, but on the whole I gained in flesh and in strength until I became one of the "heavy-weights," tipping the

beam at 235 pounds and thereabout for several years, until in the early autumn of 1890 I contracted a cold by a tedious night ride without sufficient covering, when I got chilled through and through. Then ensued catarrhal and laryngeal troubles followed by lower bronchial inflammation, which assumed the chronic form, and I began again to lose weight and appetite. Further, I had become disgusted with the smell or sight of cod-liver oil, and though I used it to some extent, it was followed at a poor dying rate for a year or so, and then discontinued altogether. I "lost heart," to use a common expression, and though I tapered off with an emulsion of beef and oil, I finally dropped that and used clear cream instead,—still keeping up the whiskey, but in lessened quantities. Night sweats and bacilli reappeared, but after a time the sweats diminished and the bacilli were drowned out, perhaps. I paid but little attention to the latter, however, as I thought, like crows, they only come where the carcass is; in other words, I believed then as now that they are the sequence and not the cause of the disease—"*Hinc illæ lacrimæ.*"

The contagiousness of the disease I had withstood twenty years previous when I slept with my traveling companion, who died, as I before remarked, the following year of undoubted phthisis. But I once knew a doctor whose wife died with consumption, who owned a rat terrier that occupied the bed with her a good deal during her illness, and while the doctor escaped, the dog died of evident phthisis. So in regard to the contagiousness of the disease I am by no means positive—notwithstanding I have been carefully on the watch for many long years—still I am satisfied that it is infectious under certain favorable circumstances. But to return: As I said before, I lost my grip, so to speak, and finally died—that is, I was practically dead—but it being cold, frozen weather no preparations were made for my obsequies, until at last I got up and overhauled my case and concluded to give up the idea of dying with consumption, or any other disease, just then; but I firmly resolved not to die of phthisis anyway, and have adhered to that proposition ever since. My diet was changed to raw oysters and raw beef, creamy milk and vegetables such as I could eat (for it must be understood that I had literally no appetite whatever, but ate what was easiest to force down). The whiskey was finally dropped, or rather it cut loose itself; it was beginning to make me feel disagreeable in divers ways, so we dissolved partnership entirely, absolutely, and perpetually; and right here let me say that in all the consumptives that I have prescribed for—and some of them used it for years when needed—I never made a drunkard or heard of a case which upon recovery failed to dispense with it when its usefulness had ceased.

Consumption I believe to be a curable disease, and further, that a majority of cases if taken before too severe and extensive disorganization has taken place, should recover. But the idea that the patient is doomed to die materially lessens the possibilities of recovery, by its moral effect. If the patient were made to understand and believe that the chances for his recovery are good, provided he follows the treatment and regimen perfectly, many cases could be brought through that now succumb from fright. In fact both physician and patient frequently follow the example of Crockett's coon, and "come down" as soon as phthisis has been diagnosed. I know I have had case after case recover by taking the opposite course, and enthusing with the probability—not possibility—of recovery in course of time.

To return again to my own case: I have fully decided not to die with the disease in question, whatever worse calamity may befall me. My lungs are now comparatively sound, and I am steadily gaining in flesh and strength, and while I have discarded my old friends, the oil and whiskey, I must say that I believe they did me a good turn when nothing else would have filled the indications: further, the improved Lofoten cod-liver oil, as prepared by Messrs. Parke, Davis & Co., furnishes the medicament, or food, in palatable shape and is as far superior to any and every form of emulsion in remedial effect as can well be imagined.

In conclusion, allow me to say that during all these long years—barring the last two or three—I have had to attend to a large country practice over none of the best roads, and it has been a not uncommon thing for me to ride out and visit a patient when I was the most

ill of the two—have ridden all day in winter when I could put the thermometer under my tongue and run it up to 102° all the long day. However, I do not recommend this sort of procedure nor make it particularly a boast, but simply mention it to show what a hustling doctor has to endure while traveling through this "vale of tears," especially if he has to contend, as I did, with poor health and poverty.

Lastly, let me add that in my opinion heredity goes farther than all other predisposing causes combined, and that pure air and water cut a comparatively small figure, for on the hills of Maine and the mountains of the Cumberland the death-rate from phthisis is greater than it is in the dens and slums of New York City. Malaria, in an early day here in Michigan, was deemed to bar the disease, and I believe the sugar camps and pine forests of Louisiana are better for cases generally than the rare air of Colorado, but if the patient is ill the place for him is at home, where he can have proper care, bathing, etc.

It seems in some cases as though the doctor advised the patient to go West or South in order to get rid of him. This is a species of cruelty as unprofessional as it is hurtful to the patient. Again, a degree of melancholia settles down over certain patients that is worse than death; in fact, it causes them to long for death as a harbor of rest.

Phthisis originates in lack of proper digestion and assimilation of food, and depressing influences either physical or mental, and in short anything which tends to lower the *vis medicatrix naturæ* places the individual in condition to favor the deposition of tubercle, but it by no means follows that it should necessarily result in death.

Again, let me adjure all ye men of the ilk to recommend the patient who has undoubted phthisis to make his peace with God and then go to work and get well. It will require work on his part to take his morning bath—cold if he can stand it—daily exercise in suitable weather, or horseback if he can get it so; still, walking will do, but exercise. Then with suitable food and regimen, coupled with cheering words, keeping his thoughts away from his ailment, he may soon be on the high road to recovery.

Laingsburg, Michigan.

THE MEDICAL AGE.

A SEMI-MONTHLY REVIEW OF MEDICINE.

—PUBLISHED BY—

GEO. S. DAVIS, Medical Publisher, Box 470.

All communications regarding papers, reports, etc., should be addressed to the Editor of the MEDICAL AGE, P. O. Box 470, Detroit, Mich.

Matters relating to advertising space, etc., to be addressed to the publisher, Geo. S. Davis, Box 470, Detroit, Mich.

The editor cannot engage to return rejected manuscripts or to correspond with the writers thereof, unless such are accompanied by sufficient postage.

DETROIT, MICH., JANUARY 11th, 1897.

Editorial.

WOMAN AND THE BICYCLE.

Under the title of "Immorality in Canada" an editorial appeared not long since in our eastern contemporary, the *Medical Record*, which was immediately seized upon and made to do duty over again in some of the Canadian medical journals, along with added editorial comments most unseemly to the dignity of the profession. Within a few days the same "hash" has reappeared in the *Record* under the guise of "Canadian Correspondence."

This "tempest in a teapot" arose from an editorial that appeared in the *Dominion Medical Monthly* dealing with bicycle riding for women, and pointed out that such in many instances tended to promote erotism and erethism. This editorial made no accusations against Canadian or other women, and such could be imagined only through error or the workings of a mind itself impure—indeed, no Canadian or American woman, notoriously, can find a better champion than the author of the article, which dealt simply with well known and cold facts. What renders the matter more conspicuous is, that various papers, editorial and otherwise, have appeared from time to time in foreign and American journals, THE MEDICAL AGE included, that treated of this same subject along the same precise line as the *Dominion Medical Monthly*, yet not one has hitherto been deemed a fit subject for attack. The only comment possible, then, is that the editor of the *Medical Record* did not give the editorial in the *Dominion Medical Monthly* the careful perusal that is always demanded

when one presumes to act the critic; and, second, that the attacks by *confrères* and rivals had their inception in personal and political differences rather than any desire to perpetuate the errors of the *Medical Record* or to uphold the morality of Canadian women —than whom there are none more moral on the face of the globe, or less in need of defense of this character, which certainly is not at all to their taste.

Such wrangles are at all times unseemly. The Canadian medical profession as a body stands deservedly high—higher perhaps than any other like body in the world—and indulgence in petty personalities because of individual prejudices and jealousies, political differences, etc., etc., tends to besmirch the noble escutcheon of Canadian medicine. Still more puerile are remarks calling in question the character and standing of a rival journal. Whatever may be the status of the *Dominion Medical Monthly*, we discover on application to a mercantile agency that financially it is ranked six times higher than any other Canadian medical publication, and that advertising agencies accredit it with a circulation twice as great as all of its Ontario contemporaries put together.

But all this is none of our affair. We do not propose to act as champion in any sense, except of medicine as a science pure and simple; we know nothing of the personal causes that have led to such unprofessional and unethical conduct; but we do protest against such being aired in periodicals of a professed scientific character. Medical journals above all should be edited without prejudice, for true science has no preferences and no room for innuendos or bickerings; and medical science should deal only with matters of interest to the profession at large.

In spite of all that may be said by interested dealers, it is notorious that the bicycle is in many instances unsuitable to women; that the best saddle does not meet the comforts or requirements of the female pelvis; that aside from the pedal motion that ever tends to provoke erethism, the jolt of the machine is not without evil effect upon the uterus and other generative organs, and is especially apt—particularly when fostered by improper methods of dressing—to induce laxity, version, prolapse, with all the concomitants of endometritis, menorrhagia, etc. During the present summer, in one institution the writer knows nearly fifty women were treated gynæcologically whose ills were in each and every instance directly traceable to the bicycle.

As already intimated, both bicycle saddle and pedal are radically wrong as regards the moral safety and physical comfort of woman, and the effects induced are, unfortunately, slow and insidious, the exhilaration of the exercise for a time over-balancing all else.

As to the morality or immorality of the bicycle, that is a matter of consideration for the individual woman or man. There are doubtless as many moral women to-day as at any time in the history of the world, and likewise as many of opposite character. The danger is not to the mentally strong,—not so much to the full-fledged woman as to the weak and the adolescent. The medical profession has ever recognized that there are certain sexual evils readily fostered among women, and consequently when a new form presents itself it is a duty to utter warning rather than to be suddenly seized with a spasmodic virtue that denies what is well known to exist. The editor of this journal, as the result of personal knowledge and investigation, has several times been led to point out the dangers and defects of the bicycle as regards woman, but such has never caused a ripple of excitement among either the medical journals of Michigan or of the United States; neither has there been any suggestion that this journal has attacked the virtue or morality of the womanhood of any state, province or country. This subject as a whole is far from being new except in the variety of its application. The profession has ever been cognizant of such facts as are embodied; and that they have not been unknown to the laity is shown by the fulminations that appear in the works of the early "Fathers" of the church. We have before had occasion to point out that theological physiology and pathology is not to be trusted in this direction.

It is a fact that so-called bicycle schools do tend to foster immorality and provoke sensations that in many instances were before unknown to individual members of the sex.

That woman may be prone to erotism is not to her shame any more than the same is to the shame of man, theological teaching to the contrary notwithstanding. Erotism is a physiological attribute implanted by Nature as one of the means of perpetuating the kind. That erotism and erethism are observed and made the subject of lewd comment by male assistants in bicycle schools for women is well known, and in some instances notorious; such is the natural sequence of employing cheap and vulgar "help," and, considering the remuneration offered, is without remedy; and that filthy gossip should constantly increase, is to be expected. We are glad to know that the better and more refined women do not patronize "bicycle schools" but receive such teaching as they demand at home and in private.

But the chief fault lies with the machine itself, which has been widely, carelessly, persistently and unmistakably heralded as affording a health-giving exercise—one inimical to all maladies—all in the interest of the dealers. Like everything else, the bicycle is abused by some, and often by many,—more in the past perhaps than at present, because this is the invariable rule regarding every new craze or device until the novelty thereof has worn off. The remedy lies not in entirely forbidding what may under certain conditions prove a desirable exercise to some women, but an improvement in the vehicle. An appropriate seat alone will not meet the demand, but a means of propelling is required that will do away altogether with the reciprocating pedals. In fact the tricycle is more nearly the machine adapted to womanhood, and very little ingenuity would be required to fit it with a lever whereby the inductive power could be given by the knees, acting in the same direction simultaneously. Doubtless the day is not distant when the induction of motion in all vehicles of this class will be relegated to some such device as just mentioned, or, better yet, to a small motor of the petroleum or storage battery type. Fortunately the question is one that with time and the advance of progress will be sure to regulate itself; in the meantime appropriate warnings are certainly not amiss, more particularly as regards the young verging upon or just past the budding of womanhood.

KLEPTOMANIA.*

Mrs. Ella Castle, whose kleptomania created a world-wide sensation recently, has been discharged from the Polyclinic Hospital of Philadelphia, where she was for three weeks a patient. It is announced that a successful operation has completely cured the malady which caused the kleptomaniac symptoms. Mrs. Castle is the wife of a California millionaire, and was detected stealing many articles of value from London merchants. The much vaunted, perhaps over-vaunted, sternness and rigor in the administration of British justice seem to have relaxed in many cases of late. That need not occasion regret, for the treatment of offenses against property is not too perfect for improvement. So far the relaxation has been confined exclusively to favored social castes, but it is thus with all beginnings. As a result of the charge Mrs. Castle was transferred to the Polyclinic Hospital, from which it is claimed she is now discharged perfectly cured. There is no information given regarding the nature of the operation; but there is an impression abroad that not one of the medical journals will contain even an abstract description of the case, the operation and its results. There is also a suspicion that no description of the operation will be found in the records of the hospital.

The case was unquestionably rare, and the medical profession is entitled to the fullest knowledge concerning it. The general impression that the report is humbug kills all public interest in it. But suppose it to be true. The case cannot be isolated. A woman was recently sentenced to seven years' imprisonment for picking pockets. Any one who would suggest surgical treatment in her case would be ridiculed. But it is no more ridiculous in one case than in the other. If kleptomania is a real disease, amenable to medical or surgical treatment, it can be confined to no social caste. If it is a fiction the public should know it. The most noteworthy feature of this and similar affairs is the relaxation of official authority in dealing with law-breakers. Men are growing less eager to prosecute their weaker brethren, but the change is as yet chaotic. Society's persecution of the petty thief is balanced by

* By special permission of *The Globe*, Toronto.

its fondling adoration of the gigantic deceiver and defrauder of nations. One may be an atonement for the other, but which the sin and which the atonement must be decided according to individual opinions. There may be changes coming that will lessen the sin, and as a consequence lessen the need of a compensating atonement.

OVULATION AND MENSTRUATION.

Those who have given more particular attention to the subject have long been aware that the relation of menstruation to ovulation is more complex than has been generally thought. Why menstruation should continue after removal of the ovaries, as it sometimes does, is a problem that has never been worked out. Recently, Bossi, of Italy, has given considerable study to this subject, though the results are as yet very far from being satisfactory. His attention was more particularly directed thereto by four cases, which he reports:

A married woman had suffered for eight years from enterorrhagia occurring monthly, associated with hysteriform attacks intensified by marriage, and in whom coitus was impossible; it was found the vagina was absent, and the uterus and ovaries infantile in type; an attempt to establish a vaginal canal was unsuccessful.

In the second case, a middle-aged woman, menstruation had been regular but gradually merged into menorrhagia. The uterus was curetted twice without effect, then vaginal hysterectomy performed, and no trace of either ovaries or tubes found; two hours after the operation the patient nearly died of hæmorrhage, from the abnormal arrangement of the vaginal vessels present. This case is especially interesting and puzzling, for, notwithstanding the absence of tubes and ovaries, hysterectomy was deemed necessary for the treatment of menorrhagia.

In another case, monthly convulsions had lasted for three years; there was absence of vagina, the uterus infantile, and the ovaries lay in the inguinal ring, one on each side; there was complete amenorrhœa. Both ovaries—which were large and showed each a recent *corpus luteum*—were removed, when the convulsions ceased.

The fourth case was in a measure a duplicate of the third.

Thus it is evidenced that considerable investigation is demanded ere the mutual relations of the generative organs are established, and also the cause of, and the phenomena pertaining to, menstruation.

NOTHING NEW UNDER THE SUN.

It is worthy of note that while the science of medicine in its various branches has been studied and practiced in India from time immemorial, and that many of what are regarded modern discoveries in Europe have long been familiarly known in the East, yet practically nothing has been understood there of what we have learned to call sanitation. From the remarkable book just given to the world by the Indian Prince known as the Thakore Sahib of Gondal, on the "History of Aryan Medical Science," we learn that much was known to the practitioners of ancient India which is usually understood to be the result of quite recent European discovery. It is rather startling to be told that not only were the practices of percussion and auscultation familiar to the Indian medical men of 2000 years ago, but they were acquainted with the circulation of the blood, and practiced vaccination for smallpox, and cranial and abdominal surgery. The use of anæsthetics, and even of a rudimentary sort of antisepsis, is said to have been known, and the latter, at least, may be regarded as belonging to the domain of preventive medicine. But of sanitation in general, as that word is understood in our days, they seem to have known nothing; and their descendants have been content to dwell in equally blessed ignorance, until awakened to knowledge and aroused to action by the troublesome "doctor *sahib*," backed up by the Mohammedan or Hindoo policeman. Perhaps, after all, no better thing could have happened to Calcutta and Bombay than this visitation of bubonic fever; for the wholesome alarm caused by the outbreak will probably lead to the adoption of preventive measures which will be of inestimable benefit to both cities, and which, through them, will more or less intimately affect the whole of India.—*The Sanitary Record.*

EDITORIAL NOTES.

With Apologies to Doctor Gertrude C. Wellington.—

Hear the testes with their bells,
Silver bells!
How they tinkle, tinkle, tinkle,
On the perfumed air of night,
While each eye begins to twinkle,
E'en the women's faces wrinkle
With a mischievous delight,
Keeping time, time, time,
In a soft pathetic chime,
To the pendulous flip-flapping
Of the testes with their bells,
With their

BELLS,
BELLS,
BELLS,
BELLS,
BELLS,
BELLS,
BELLS.

A Worthy Charity.—

The daughter of Nathaniel Hawthorne, Mrs. Rose Lathrop, has opened a "home" in East Broadway, New York, for the care of poor cancer patients. She has also arranged for house-to-house visits and to receive the sick and infirm at her office. This is attempted as a nucleus of a permanent hospital wherein impecunious cancer patients may be kept indefinitely.

Deformity of the Uvula and Insanity.—

Dana claims to have found deformity of the uvula in fifty-three out of one hundred cases of insanity, and consequently concludes that it implies an unequal development of nerve supply of the two sides. He declares that in more than half of all degenerates the *azygos uvula* does not act.

We Thought So.—

It is said that Gladstone's head has increased in measurement three inches since the age of fifty-two.—*Homœopathic Recorder.*

We always surmised the gentleman was slightly addicted to "swelled head," but the evidence heretofore has not been sufficiently direct.

Just So!—

Paris is the paradise of those who frequent the border land between science and quackery.—*The Literary Digest.*

Items and News.

The Couvade.—

The couvade was an obstetric custom, which resulted when the child's right of inheritance passed, in the course of evolution, from the mother to the father, who was henceforth supposed to have a secret, yet intimate, connection with the unborn or recently born child. The father was believed to enter intimately into all the ailments incident on pregnancy. In Yorkshire, when an illegitimate child is born it is a point of honor with the girl not to reveal the father, but the mother of the girl goes out to look for him, and the first man she finds keeping his bed is he. The couvade was known in Ireland, at least in Ulster, and when the great invasion of that province took place under the leadership of Ailill and Mebb, with their Firbolge and other forces, they found that all the adult males of the kingdom of Conchobar MacNessa were laid up so that none of them could stir hand or foot to defend his country against invasion, excepting Cuchulainn and his father alone. According to T. S. Bullock, the belief underlying the couvade still survives in Kentucky. The husband is "commiserated" with on account of "morning sickness."—*Medical Standard.*

Singing Mice.—

A correspondent of the New York *Sun*, signing himself "M.D.," enlightens the readers of that journal as follows: "I find in the *Sun* two reports about singing mice. If the gentleman who caught the singer in a trap had taken the little body to a pathological institute for an autopsy, he would have found the cause of the singing. A post-mortem examination would have shown that the vocal cords of the animal were diseased. By some croupous or diphtheritic process, with its consequent cicatrices and shrinking of the tissue, the breathing of the mouse is impaired. The quick inspirations and expirations produce the sibilant noises which, resounding in the stillness of the night, sound to the listener as twittering or whistling. I am sorry to destroy the sentimental or poetical ideas which might be connected with the singing of a mouse (might it not be a he mouse serenading his inamorata?), but very likely the singing is rather involuntary."

To Retard the Setting of Plaster of Paris.—

When, for some reason, in making plaster casts or bandages, it becomes desirable to retard the setting of the plaster magma, this

may be accomplished by adding to the water powdered althæa root in the proportion of two to four per cent. When dry, such casts may be sawed, filed, and turned. An addition of eight per cent. of althæa retards setting for a full hour, and the mass may be kneaded, rolled, and otherwise shaped. The addition of a very little alum or ferric chloride produces a very hard cast. Good plaster should not set in less than three minutes.—*Western Druggist.*

A Cancer-ridden Country.—

W. E. Curtis reports that in Wayne county, Ohio, south of Canton, is a "cancer belt"—a strip of country about thirty miles long by twelve miles wide—which offers a field for hygienic and pathologic research. It is said that five of every six women in this district are afflicted with cancer. There are several local explanations for the prevalence of the disease; the most curious attributing it to cherry trees, with which the roadways are lined. But, so far as is known, there has never been any scientific investigation.—*Western Druggist.*

Preservation of Leeches.—

Strew a thin layer of coarse washed sand on the bottom of the container, together with some clean washed straw. This requires renewal every six months; and, according to the season, the water (of which about one liter suffices for ten leeches) must more or less frequently be replaced, thoroughly cleaning the jar each time. In this way leeches will retain their vitality almost indefinitely.—*Pharmaceutische Zeitung.*

Castration for Crime.—

"Castration for crime and incompetence" should be the key-note of reform in our penal and corrective institutions. The system in vogue at present has proven itself, so far as the cure of criminals is concerned, a total failure.—*Charlotte Medical Journal.*

Undoubtedly.—

A man who had been ill informed a friend that Doctor Blank had "brought him through." "No, he did not," replied the pious neighbor: "Providence saved you!" "Well," replied the former, "maybe he did, but I know Doctor Blank charged for it."

A Scientific Result.—

A western community has lost fifty per cent. of its cows in stamping out tuberculosis; beef and milk are up, and tuberculosis is just where it was before.—*Exchange.*

Book Reviews.

Influence of the Zodiac upon Human Life. By Eleanor Kirk. Cloth; 16mo; pp. 179. Price, $1.00. The Ideal Publishing Co., New York.

This is certainly a unique volume, and presents the claim of being "the only simplified astrological work in the world." To those who are desirous of understanding themselves; who seek congenial marital relations or cures for the miseries of the married lot; who wish to discover the causes and cures for glaring faults and idiosyncrasies, to know in what particular line their talents lie, and how they can succeed socially, morally, and financially, this volume promises to be a friend in need, and to unlock the door to valuable treasures. It is added that "one has only to know the month and day of his or her birth to find every virtue, talent, fault and inconsistency clearly depicted, with a panacea for each troublesome condition." Even this is not all: the promise is made of showing a way of overcoming faults, how to bring up children, accumulate wealth, etc.: also are given the "governing planets, the gems and astral colors of every person"—whatever this may mean. Truly, if the volume will only do the half that is promised, no one can grudge the small price asked therefor.

An Arkansas Planter. By Opie Read. Cloth; 12mo; pp. 315. Price, $1.25. Rand, McNally & Co., Chicago and New York.

Opie Read has never ranked among bookmakers; but in the volume before us he has more than won his spurs. It is a volume full of quaint conceits, pleasant glimpses of Southern life, and descriptions of character; with all is woven a simple little story, presenting nothing startling unless it be at the climax, when an account of a negro insurrection is given. The portrait of old Gabriel Butts alone, which appears as a frontispiece, should attract one to the book—it is characteristic. This quaint individual, and his friend "the Major," are real pen pictures—one the easy-going jovial individual, taking the world as it comes with little attention to the duties which devolve upon man; the other, hospitable and kindly almost beyond belief, and obliged, in order to make ends meet, to have an office building where he can put aside all his tender feelings and attend to more stern affairs.

As a whole the volume is a delightful one, and its value has been greatly enhanced by the mode and character of its illustration.

Two Health Seekers in Southern California. By William A. Edwards, M.D., and Beatrice Harraden. Cloth; 16mo; pp. 144. Price, $1.00. The J. B. Lippincott Co., Philadelphia.

This is an attempt to give an impartial account of Southern California, avoiding the fulsome praise of guide books and land-office advertisements and

yet be of direct interest and help to health seekers. The first and fourth chapters are by Miss Harraden, in which she expresses her opinion after a residence of two and a half years.

Doctor Edwards' description is certainly a most fair one, but he has committed the error of employing technical medical terms in a volume which is intended for the general public; indeed, chapter six might better have been left out altogether. Nevertheless the volume is one that should be read by every person who seeks a residence in Southern California, and while it will disillusionize many, its purpose is emphatically for good.

MEDICAL JURISPRUDENCE, FORENSIC MEDICINE, AND TOXICOLOGY. By R. A. Witthaus, A.M., M.D., and Tracy C. Becker, A.B., LL.D. Cloth; 8vo; pp. 892. Price, $5.00. William Wood & Co., New York.

This is the fourth and final volume of this work, the first copy of which was issued more than a year ago. As we have before mentioned in these columns, the work is the most complete and thorough of its kind that has ever emanated from the American press. This entire volume, which is devoted to Toxicology, is from the pen of Doctor Witthaus. The first section is devoted to General Toxicology; the second to Special Toxicology; the third to Mineral Poisons; the fourth to Vegetable Poisons; the fifth to Animal Poisons; and the last to Synthetic Poisons.

Too great praise cannot be given both authors and publishers.

THE LIVING AGE. Price, 20 cents; $6.00 per year. The Living Age Co., Boston.

With January 2d, this magazine began its *two hundred and twelfth* volume. It has grown in excellence with years—adding the experience of the past with full appreciation of the needs of the future. If anything more were necessary to make it the ideal periodical, especially adapted to the needs of the reader, the addition of a Monthly Supplement devoted to Readings from American Periodicals, Readings from New Books, and a List of Books of the Month, supplies the hiatus. The general reader is put under further obligations to the publishers for giving, in addition to what has heretofore been presented in its pages and the above mentioned Supplement, translations from the periodical press of Continental Europe; hitherto this wide field, containing much of interest and profit to the American public, which is so alive to every question of the day, has been unknown ground to all but the favored few.

The first number of the new year presents: "The Olney Doctrine," by Sidney Low; "The Duel of the Period in France," by James Pemberton-Grund; "Banki Miklos" (from the Hungarian), by Selina Gage; "A Modern 'Morality,'" by Jules Lemaitre (from the French); "The Puritan in History," by Principal Fairbairn; "Recollections of Coventry Patmore;" "Catholic Mystics of the Middle Ages;" and "A Winter's Walk;" with poetry and fiction. This, the first weekly issue of the new year, is a good one with which to begin a new subscription. For fifty-two numbers, aggregating about 3600 pages (*300 pages a month*), the subscription price ($6.00) is very low.

THE YOUTH'S COMPANION. Price, 5 cents; $1.75 per year. Perry Mason & Co., Boston.

Among the many attractive announcements of the *Companion* for the coming year is an article of exceptional value by Mr Andrew Carnegie, on "The Habit of Thrift." Successful men in other walks of life will second Mr. Carnegie's paper with readable, practical articles based on their own experience, and valuable to the old as well as to the young. Stories will be given by Ian Maclaren, Rudyard Kipling, Stephen Crane, Harold Frederic, and Clark Russell. Speaker Reed, Secretary Herbert, Senator Lodge, Hon. Carl Schurz, Postmaster-General Wilson, Doctor Lyman Abbott, Hon. Theodore Roosevelt—these are a few of the two hundred names that figure in the latest list of contributors. The non-partisan Editorials and the Current Events and Nature and Science Departments are of especial interest to students and to all who wish to keep informed of the doings of the world. As a reference book a file of *Companions* is well-nigh invaluable, for its reputation is founded on seventy years of tested accuracy. New subscribers sending $1.75 for 1897 will receive the artistic twelve-color Calendar, and the paper a full year to January, 1898. Illustrated Prospectus of the next volume will be sent free upon request.

ARCHITECTURE AND BUILDING. Price, 15 cents; $6.00 a year. W. T. Comstock, New York.

The December 26th, 1896, number contains: "Our Banking System;" "Rights of Labor and the Law;" "Editorial Notes and Comments;" "Wood Carving and Wood Carvers" (II); "Wisconsin Architects;" "Interior Lighting by Gas" (II); "In Streets and Papers;" "The Young Man and His Chances of Success;" "Interior Decoration Exhibit;" "Legal Notes;" "Erection of a Big Building;" "Indian Pictures in a Minnesota Cave;" "Colonnades;" "Acoustic Vases;" "Novel Method to Prevent Strikes."

Beginning with the January 2d, 1897, issue the subscription price has been reduced to ten cents per copy and four dollars a year. The contents of this number are: "To-day's Issue;" "The Labor Conditions for 1897;" "Editorial Notes and Comments;" "Trussed Roofs" (II); "The Avery Library;" "Greek Measurements;" "Ancient Weathercocks;" "In Streets and Papers;" "Model Apartment Houses;" "Chicago Architects' Business Association;" "Industrial Progress." There are the usual departments in both issues.

THE ROYAL NATURAL HISTORY. Edited by Richard Lydekker, B.A., F.R.S., F.Z.S. Price, 50 cents; $11.00 per year. Frederick Warne & Co., New York.

The final two numbers of the completed volume are before us. That of October 1st, 1896, continues the Mollusca and Protozoa; the issue of October 15th contains Table of Contents, General Index, Instructions to Binders, etc., with the final words regarding those forms of animal life which closely border upon to the vegetable kingdom.

Complete, this work presents the most magnificent epitome of natural history, in six octavo

volumes, that has ever yet been offered to the public; furthermore, it is by long odds the most accurate, not the least of its perfections being the illustrations, and particularly the colored plates which, unlike pictures of this character usually, are true to nature.

THE CENTURY. Price, 35 cents; $4.00 per year. The Century Co., New York.

The principal articles in the January number are: "Lenbach," by Edith Coues; "Speech and Speech-reading for the Deaf," by John D. Wright; "Campaigning with Grant" (III), by Horace Porter; "Napoleon's Interest in the Battle of New Orleans," by W. H. Robarts; "Hugh Wynne, Free Quaker" (III), by S. Weir Mitchell; "The Lights of Sitka," by C. B. Fernald; "The Ladies of Llangollen," by Helen M. North; "Summer at Christmastide," by Julian Hawthorne; "The Solitary Woodsman," by C. G. D. Roberts; "Nelson in the Battle of the Nile," by Alfred T. Mahan; "A Rose of Yesterday" (III), by F. M. Crawford; "The Absurdity of War," by E. L. Godkin. There are the usual installments of poetry, current comments, etc.

APPLETON'S POPULAR SCIENCE MONTHLY. Price, 50 cents; $5.00 per year. D. Appleton & Co., New York.

The principal articles in the January issue are: "Principles of Taxation" (V), by David A. Wells; "An Object Lesson in Social Reform," by Franklin Smith; "Botanic Gardens" (II), by D. T. Macdougal; "Our Present Knowledge of the Antarctic Regions," by Angelo Heilprin; "Disinfection at Quarantine," by M. E. Ward; "Evolution of the Carrier Pigeon," by M. G. Renaud; "Spiders and Their Ways," by M. W. Leighton; "Petroleum, Asphalt, and Bitumen," by M. A. Jaccard; "A Curious Canadian Iron Mine," by J. T. Donald; "The Psychology of Genius," by William Hirsch; "Affections and Jealousies of Lizards," by M. J. Delboeuf. There are the usual departments.

THE ECLECTIC. Price, 45 cents; $5.00 per year. E. R. Pelton, New York.

This magazine with this month enters its fifty-third year with a contents list of sixteen articles, sketches and tales selected and reprinted from foreign magazines. The first of these should be of general interest in this country, as it is an Englishman's idea of "Lessons to be Learnt from the Recent American Election." Other articles are: Some Characteristics of Shakespeare;" "Omar Khayyam;" "The Women of Lyric Love;" "Rahel Levin and her Times;" "Bhowani, the Cholera-Goddess;" "The World Beneath the Ocean;" "The Commons at Work;" "Beau Brummell;" "James the First and Sixth;" "Icebound;" "The Folk Whose Voices We Hear;" and "The Parish Councillor's Dilemma."

THE AMERICAN ANTIQUARIAN. Price, $4.00 per annum. S. D. Peet, Good Hope, Illinois.

The November-December, 1896, issue contains: "Manufacture of Abraded Stone Implements," by W. H. Holmes; "Mounds and Cists at St. Paul," by T. H. Lewis; "A Remarkable Discovery of an Ancient City in Mexico;" "Garden Beds in Michigan Modeled," by H. E. Oakes; "King David's Stone Stairway," by T. F. Wright; "Symbols in the Carved Rocks of Mosquito Shore," by W. D. Farrington; "When Patlatches are Observed," by James Deans; "A Choctaw Cemetery in Alabama," by H. S. Halbert; "Ancient and Modern Pueblo Architecture," by S. D. Peet; "Migrations of the Indian Tribes of the Atlantic Coast," by Cyrus Thomas. There are the usual departments.

LIPPINCOTT'S MAGAZINE. Price, 25 cents; $3.00 per year. The J. B. Lippincott Co., Philadelphia.

The complete novel in the January issue is "Stockings Full of Money," by Mary Kyle Dallas; "Are American Institutions of Dutch Origin?" is by Sydney G. Fisher; "A Christmas Midnight in Mexico," by H. W. French; "South Florida before the Freeze," by R. G. Robinson; "Marrying in the Fifteenth Century," by Emily B. Stone; "Robert the Devil," by C. M. Girardeau; "The Western Housekeeper and the Celestial," by May Hoskin; "Theatre-going in St. Petersburg," by Isabel F. Hapgood; "An Ahonymous Love-letter," by Virginia W. Cloud; "With the Whitefish Nets," by Allan Hendricks. There are the usual departments.

THE OPEN COURT. Price, 10 cents; $1.00 per year. The Open Court Publishing Co., Chicago.

With the new year and eleventh volume this hitherto weekly paper appears in a new dress. It will henceforth be a magazine of sixty-four pages, octavo, issued monthly—a change that is decidedly for the better.

The initial number contains: A Salutatory by the Editor; a sermon on "Trade and Usury," by Doctor Martin Luther, translated by Doctor W. H. Carruth; "Science in Theology," by Carl Heinrich Cornill; a controversy on "Buddhism" is carried on by the Right Reverend Shaku Soyen (Kamakura, Japan), Reverend John H. Barrows (Chicago, Illinois), and Reverend F. F. Ellinwood (New York City).

ST. NICHOLAS. Price, 25 cents; $3.00 per year. The Century Co., New York.

The principal papers in the January issue are: "Danny and the 'Major,'" by Gertrude P. Greble; "Hop Wing and the Missing Treasure," by Frank M. Bicknell; "Mirrors of Air," by Tudor Jenks; "Master Skylark" (VIII, IX, X, XI), by John Bennett; "A Boy I Knew" (II), by Laurence Hutton; "June's Garden" (V–VI), by Marion Hill; "Historic Dwarfs" (V), by Mary S. Roberts; "St. Paul's Rocks," by Gustav Kobbé; "The True Story of Marco Polo" (XV), by Noah Brooks; "The Last Three Soldiers" (VI–VII), by W. H. Shelton; "St. Nicholas Day in Holland," by Annie C. Kuiper. There are the usual departments.

THE DECORATOR AND FURNISHER. Price, 20 cents; $2.00 per year. The Art Trades Publishing and Printing Co., New York.

In Amateur Home Decoration is described "How to Hang Anaglypta;" "A Pretty Fire Screen;" "A

Good Way to Reseat a Chair." There are also the usual "Art Matters;" "Decorative Textile Fabrics;" "Editorial Annotations." A. Moorman writes of "A Modern Pompeiian Dining-Room;" "A Day in Pompeii" is by Genie H. Rosenfeld; "Various Decorative Corners of the Home," by Zepho; "Student Life in Vienna," by C. W. Conant; "A Curious and Interesting 'Fad' in Furniture;" "Pottery, Porcelain and Glass," with designs by E. T. Reeves, complete the number.

THE ATLANTIC MONTHLY. Price, 35 cents; $4 00 per year. Houghton, Mifflin & Co., Boston and New York.

The chief articles for January are: "The Story of an Untold Love" (I–VII), by Paul L. Ford; "A Century of Social Betterment," by J. B. McMaster; "Dominant Forces in Southern Life," by W. P. Trent; "Cheerful Yesterdays" (III), by T. W. Higginson; "Memorials of American Authors," by J. E. Chamberlin; "The Juggler" (IV), by Charles Egbert Craddock; "Park-making as a National Art," by Mary C. Robbins; "The Convent Man-Servant," by Mary H. Catherwood; "The Poetry of Rudyard Kipling," by C. E. Norton.

THE NORTH AMERICAN REVIEW. Price, 50 cents. $5.00 per year. North American Review Co., New York.

In the January number Poultney Bigelow writes interestingly on "The German Press and the United States." Other articles are: "Strikes as a Factor in Progress," by M. E. J. Kelley; "Genius in Children," by Andrew Lang; "Pending Problems," by Albion W. Tourgee; "Some Aspects of the Drama of To-day," by H. B. Tree; "Folly of Differential Duties," by John Codman; "A Study in Campaign Audiences," by Lloyd Bryce; "The Danger Point in American Politics," by J. E. Milholland.

DONAHOE'S MAGAZINE. Price, 25 cents; $2.00 per year. Donahoe's Magazine Co., Boston.

Among the most striking features of the January issue are: "Presidential Administrations," by Theodore F. Benton; "The Transition of an Historic Order," by M. R. Taylor; "The Ballad Poetry of Ireland," by Reverend William Dollard; "Newfoundland in Her Four Hundredth Year," by J. O'Reilly. D.D.; "The Rights of Children," by Mortimer E. Twomey; "The Land Leaguer's Christmas," by P. J. Lynch; "Barbara Burchard's New Year," by Sarah Flint; and "Two Under Dogs," by Blanche McCarthy. The poetry is of a very high order.

CANADIAN MAGAZINE. Price, 25 cents; $2.50 per year. Ontario Publishing Co., Toronto.

The chief articles in the January issue are: "Camp Sketches," by David Owen Lewis; "Artistic Country Roads," by A. W. Campbell; "A Slight Misunderstanding," by Isabelle E. Mackay; "Reconciled," by Thomas Swift; "Kate Carnegie" (concluded), by Ian Maclaren; "My Contemporaries in Fiction," by David Christie Murray; "Canadians Abroad," by F. Clement Brown; "Functions of a Governor-General," by W. A. Weir; "The Judicial Committee," by Richard J. Wicksteed.

MCCLURE'S MAGAZINE. Price, 10 cents; $1.00 per year. The S. S. McClure Co., New York.

Contents for January: "Grant at West Point" is by Hamlin Garland; "The Pity of It," by Mrs. J. H Riddell; "Captains Courageous" (IV–V), by Rudyard Kipling; "The 'Martha Washington' Case," by Lida R. McCabe; "In a Bowery Regiment," by M Davis; "The Making and Laying of an Atlantic Cable," by Henry Muir; "Benjamin Franklin," with fifteen original portraits, by W. P. Trent; "The Derelict 'Neptune,'" by Morgan Robertson.

THE METAPHYSICAL MAGAZINE. Price, 25 cents; $2.50 per year. Metaphysical Publishing Co., New York.

The January issue opens with a paper on "Mysticism and Its Witnesses," by Alexander Wilder; followed by the eighteenth of Bjerregaard's papers on "Celts, Druids and Being;" the first of a series in analysis of "Anger," by A. M. Crane; an explanation of the monogram "I. H. S.," by R. E. Moore; "The Psychology of Diet;" "Self Culture;" and a definition of "Telepathy" by Clara K. Barnum.

THE PHRENOLOGICAL JOURNAL. Price, 10 cents; $1.00 per year. Fowler & Wells Co., New York.

The principal articles in the January number are: "What Ought to Be," by Orrin Dudley; "Locality —Sense of Place," by N. Sizer; "The Fowler Phrenological Institute, London;" "Phrenology Versus Credentials," by Anna O. Commelin; "Phrenology and Psychology" (VI), by J. W. Shull; "How Blind Children See," by Charlotte W. Howe; "There is Room at the Top," by Mrs. M. T. Bailey.

THE AMERICAN ANTHROPOLOGIST. Price, 20 cents; $2.00 per year. The Anthropological Society, Washington, D. C.

The December number contains: "Ornithological Vocabulary of the Moki Indians," by Doctor Edgar A. Mearns, U. S. A.; "Stone Images from Mounds and Ancient Graves," and also the "Vigesimal System of Enumeration," by Cyrus Thomas; "Australian Class Systems," by R. H. Matthews. There are the usual departments.

THE COSMOPOLITAN. Price, 10 cents; $1.00 per year. The Cosmopolitan Publishing Co., Irvington-on-the-Hudson.

To the first number of 1897 Doctor Conan Doyle contributes a story entitled "Uncle Bernac;" Murat Halstead writes of "The Story of the Farmers' College;" Theron C. Crawford contributes a new illustrated serial, "A Modern Fairy Tale." Other matter proves very acceptable as introduction to a new year's reading.

THE MONIST. Price, 50 cents; $2.00 a year. The Open Court Publishing Co., Chicago.

Contents for January: "The Logic of Relatives," by C. S. Peirce; "Science and Faith" (II), by P. Topinard; "The Philosophy of Buddhism," by the Editor; "Literary Correspondence," by Lucien Arréat; "Criticisms and Discussions;" "Book Reviews."

Therapeutic Brevities.

Lithiasis in Boys.—In Hungary children suffer not infrequently from stone, and I have seen ten cases, varying in age from two and a half to twelve years. I advocate supra-pubic cystotomy in these, as it is an operation that requires no special skill, is very easy in children, and even safer (though the time in bed is somewhat longer) than litholapaxy. The bladder heals very readily in young subjects, and should be at once sutured completely with silk, no drainage being needed. The only special source of difficulty is the great reflex excitability apt to appear, which may prevent the bladder being properly distended; a low insertion of the peritoneum may also complicate the operation. I have never had any trouble with stitches, and do not think they should ever require removal. Stones are sometimes impacted in the urethra, whence the simplest mode of dislodgment is a prolonged warm bath, which is often effective alone. In one of my cases a peri-urethral abscess formed, which, when cut down upon, was found to contain the stone; in another the concretion was removed by urethrotomy; in a third it was extracted from the cavernous urethra by supra-pubic cystotomy. In the two latter cases retention and dribbling had persisted for some days, and the bladder reached nearly up to the umbilicus.—SCHWEIGGER, in *Wiener Medicinische Wochenschrift.*

Prescribing for Children.—From prescribing drugs which they seldom see, practitioners are apt to overlook the nauseousness or the unsuitable bulk and consistence of the materials they employ. This is of importance in regard to children. Certain flavors which are very unpalatable may be easily disguised, as scammony and castor oil with milk, senna with chloric ether, and decoction of aloes with liquorice. Of certain drugs the saccharine preparation should be selected; to others sugar, or the infusion of roses or cloves, may be added. Bulky powders should be avoided, and the dose of fluids should not exceed one or two drachms. There is a legitimate distinction to be drawn between the medication of children and the medication of adults. To the child the process can hardly fail to be grievous; it never affects his imagination except unfavorably. With the adult the taking of medicine always excites a pleasing hope, and no one can doubt that, in some instances, the mere belief in it is of itself salutary.—*Clinical Medicine.*

Palliative Treatment of Movable Kidney.—The best mechanical treatment consists in pressing into the surface of the abdomen a large and pretty thick falciform pad, whose concave curve is a little bigger than the contour of one side of the kidney. This is kept in place by a belt or truss spring, according to circumstances. A movable kidney is most commonly found high up in the inguinal region; further, the pain usually only arises when the trunk is erect, and ceases with recumbency. In such instances the pad is pressed in just below the kidney, so as to make, as it were, a shelf on which the kidney can rest. The pain is ordinarily due to the kidney dragging by its own weight on the vessels and nerves which constitute a cord running to it; and the pad by under-support takes off this strain. It is wise to only fix the pad temporarily to the belt, as the best position for pressure is frequently found out experimentally by the patient. An enlarged and tender ovary is sometimes confused with movable kidney, but the same belt and pad treatment generally alleviates both these conditions.—*The Lancet* (New York).

Absorption of Drugs by the Skin.—Volatile bodies, notably those which, in spite of a high boiling-point, possess a certain vapor-tension at ordinary temperature, can be absorbed by the healthy skin in amounts well beyond the usual therapeutic doses. This absorption is regular, subject to invariable laws; for instance, with guaiacol and methyl salicylate, the dose can be made according to the therapeutic indication as well as if ingested by the mouth and absorbed by the intestinal tract. Some remedies can thus be employed in massive doses without risking any disturbance of the digestive functions which would follow oral administration. Apparently methyl salicylate (oil of wintergreen) can be administered by the skin as an advantageous substitute for sodium salicylate by the mouth.—*Bulletin Générale de Thérapeutique.*

Periods of Isolation for Contagious Diseases.—For scarlatina, variola, varioloid, and diphtheria, the period of isolation before the child is allowed to return to school should be forty days, counting from the first day of invasion.

For measles and varicella, sixteen days is sufficient.

For pertussis, isolation should be prolonged to three weeks after complete cessation of the characteristic whoops.

For mumps, ten days after the disappearance of the local symptoms.

Nasal, buccal, and pharyngeal irrigations with antiseptic solutions should be employed, and a soap bath and rubbing of the entire body surface and scalp should be given before the return to school.—*Gazette Médicale de Strasbourg.*

Enucleation of Eye Under Cocaine.—I have five times performed enucleation of the bulb under cocaine, five-per-cent. solution, dropped repeatedly into the conjunctival sac till the eye was insensitive. The operation was then rapidly performed and was quite painless. One of the patients was an old man, aged eighty-four, emphysematous, and with a hypertrophied prostate; the heart was much dilated, and there was some cystitis, so that the administration of a general anæsthetic would have been a very serious matter; the eye trouble was glaucoma. Another glaucoma case treated with equal success was in a child of eight months; the glaucoma was here secondary to tuberculous iritis.—MOHR, in *British Medical Journal.*

Fœtid Diarrhœa.—In fœtid diarrhœa of all kinds, and especially when accompanied by tormina and tenesmus, *pure* beechwood creosote is the true remedy. The watery solution is the most convenient to administer. Put twenty drops in an eight-ounce bottle, fill up with water, and shake well each time before taking. The dose is one to two ounces every hour or two. I have administered forty to fifty drops in a day in severe cases, with excellent results. I have frequently seen the very bad odor of the stools, urine, body, etc., all pass away under creosote. I believe this medicament to be one of the best in catarrh of the stomach and small intestines; in the diarrhœa of infants it is also very valuable. —JOSEPH ADOLPHUS.

The Abortive Treatment of Coryza.—Lermoyez recommends:

Pure carbolic acid, 75 grains.
Ammonia water, 75 grains.
Alcohol, 150 grains.
Distilled water, 225 grains,

Ten drops of this to be poured on to blotting paper, and the vapor inhaled by the nose for a few seconds, every two hours.

And as an excellent abortive snuff:

Cocaine hydrochlorate, 14 grains.
Menthol, 5 grains.
Salol, 150 grains.
Boric acid, 450 grains.

A large pinch to be used every hour.

—*Thérapeutique des Fosses Nasales.*

Opium Poisoning.—In any case of opium poisoning I would first employ an emetic; then I would give hypodermatically one-fourth to one-half grain of cocaine; wait twenty minutes and give another injection of cocaine. After twenty minutes I would repeat the dose if no manifest improvement had set in. I often give three separate doses of one-fourth grain each at intervals of twenty minutes. This is best on account of the quick diffusibility of the drug and its sustained effect. Coffee by mouth or rectum, and artificial breathing. This is an improvement on the atropine and the permanganate-of-potassium methods.—STICKNEY, in *Medical Record.*

Therapeutic Uses of Suspension.—Suspension is worthy of being employed as a therapeutic measure in nervous diseases, though it is impossible, as yet, to establish clearly the indications and contra-indications of this method. It gives excellent results in the second stage of tabes, and very good results in neurasthenia and other neuroses as a symptomatic measure which may be recommended in vertebral caries of tubercular origin and in other lesions of rachitis. It exerts favorable action upon visual disorders in patients suffering from atrophy of the optic nerve. It is not an indifferent means, and must be employed with caution.—*Deutsche Zeitschrift für Neuen Heilkunde.*

Treatment of Sprains.—Heat applied by any one of the modes is one of the most effective remedies for sprains if applied immediately after the accident. A temperature of 110° F. is too extreme at first. It is best to begin with a temperature of 100°, gradually add boiling water (keeping the thermometer in the vessel), slowly increasing the temperature up to 115°, and possibly to 120°. The latter is extremely high, but the results are better. In the treatment of any inflammatory disease, chronic, accidental, or otherwise, heat stands at the front as the best, safest, cheapest, and most reliable agent.—*New York State Medical Reporter.*

Intolerance of Duboisine.—Idiosyncratic intolerance of duboisine is by no means rare, a fact which should be borne in mind when handling this powerful alkaloid. A case is narrated of a patient being treated for astigmatism by the instillation of one drop of a 1-to-300 solution, who developed symptoms resembling alcoholic intoxication. Dryness of the throat and a rash on the hands were

noted; for half an hour he was incapable of voluntary movement; at the expiration of that time pallor succeeded to congestion, the voice became feeble, and the patient gradually recovered.—*Druggists Circular.*

Analgesic Mixture for Extraction of Teeth.—

Cocaine muriate, 10 to 20 centigrammes.
Morphine muriate, 25 milligrammes.
Sodium muriate, 20 centigrammes.
Analgesin, 1 to 2 grammes.
Guaiacol, 2 minims.
Distilled water, 100 grammes.

Several punctures are made into the tissues about the tooth, and a few drops injected in each until the gum appears bloodless. The tooth may then be extracted without pain. The morphine and analgesin are added in order to prevent the late appearance of the pains after the cocaine has ceased to act.—*La Semaine Médicale.*

Corrigents of Chloroform and Ether.—

℞ Morphine hydrochlorate, 10 grains.
Atropine sulphate, 1 grain.
Chloral hydrate, 17½ grains.
Distilled water, 1050 grains.

M. From fifteen to twenty minims to be given subcutaneously before beginning anæsthesia.

Fraenkel declares he has used this corrigent solution in thousands of gynæcological and obstetrical operations, without a single death or any serious untoward result due to chloroform, and almost without any unpleasant effects of the anæsthetic.—*Tagesfragen der Operativen Gynäkologie.*

Ulcers of Cornea.—Veasey has found topical applications of tincture of iodine of great service in the treatment of ulcers of the cornea, and especially in those that display a tendency to spread rapidly. The ulcer is first curetted or the sloughing material wiped out with sterilized absorbent cotton, and the iodine is applied immediately afterward to every portion, by means of probe and cotton, and allowed to remain for a moment, when the excess is washed off with a solution of formaldehyde (1 to 1000) the latter being used as the collyrium during the treatment.—*Philadelphia Polyclinic.*

Quinine Hydrochlorsulphate—Georges claims that this is not a special chemical combination: either cold water or ether-alcohol suffices to disintegrate it into a mixture of neutral quinine sulphate and quinine hydrochlorate. Analysis of several samples from reliable manufacturers showed a constantly varying proportion of basic salt, and since the quinine hydrochlorate is not only more soluble but also richer in quinine than the hydrochlorsulphate, possessing also a uniform constitution, the latter preparation is of only subordinate value in therapy.—*Bulletin of Pharmacy.*

The "Woodbridge" Treatment.—Eighteen undoubted cases of typhoid fever were treated in the Worcester (Mass.) City Hospital, from October 1st to December 31st, by the Woodbridge method, and all recovered; the uncomplicated cases pursued what appeared to be an unusually mild course. During this time fifty-one outside cases were reported to the Board of Health, with twelve deaths, a mortality of 23.5 per cent. During my term of service in 1894, four cases out of eighteen of typhoid fever were lost under the ordinary treatment.—Doctor Davis, in *Medical Record.*

Birch Agaric in Gastro-intestinal Disturbances.—The belief is current in Russia that *Polyporus betulinus* will cure cancer. Smirnow finds it highly efficacious in chronic gastro-intestinal troubles accompanying cancer and other inflammatory conditions of the stomach and intestines. The cancer itself continues its course, but great relief is experienced even in a couple of days after imbibing the strong decoction; pain subsides, food can be retained, and inflammation is abated.—*Journal of the American Medical Association.*

Hyperidrosis.—Employ solution of balsam of Peru (one per cent.), acid formic (five per cent.), and chloral hydrate (five per cent.), in alcohol for local and general hyperidrosis. The general perspiration in phthisis and other diseases is improved by application only of a weak solution of acid formic (five per cent.) and Peru balsam (one per cent.). For sweating of the feet, arms and axilla, chloral hydrate (five per cent.) must be added to the acid formic and Peruvian balsam.—Heusner, in *Medical and Surgical Reporter.*

Anti-neuralgic Liniment.—

Chloroform, 10 drachms.
Tincture of opium, 8 drachms.
Salicylic acid, 8 drachms.
Alcohol, 7 ounces.
Olive oil, 14 ounces.

Rub on the seat of pain.

—*The Practitioner.*

Baryta Iodide.—I have seen several cases of tabes mesenterica benefited by this remedy. I also have had two cases of well defined tubercular meningitis that were not only relieved, but cured. Give it a thorough and fair trial. In cases having enlargement of the lymphatics with enlarged spleen, quite hard and sensitive to the touch, baryta iodide is a good friend. Possibly it may be found of value in obscure diseases of the pancreas. —Fahnestock, in *Homœopathic News.*

Oxygen in Diabetes.—To a man sixty years of age Ascoli gave large quantities of oxygen each day for a little over three months. During this time the quantity of urine diminished, its specific gravity decreased, sugar was reduced to a small proportion and in two months entirely disappeared; three months later the sugar had not reappeared, although the patient had gone back to a diet of starchy foods. He also gained materially in weight. —*Il Policlinico.*

Corneal Opacities.—Employ electrolysis, the cathode being applied to the eye by means of a small silver rod with rounded end; an ordinary sponge anode may be applied to the opposite cheek. A pressure of from one and one half to three volts is sufficient. This should be at one-fourth milliampère, and one-half should never be exceeded. The eye is cocainized and the silver rod is rubbed lightly over the opacity for about one minute.—*Canada Lancet.*

Thread Worms.—It is not sufficient to attack the rectum with enemata, but purgative medicine must also be given which shall act upon the cœcum and clear away the worms themselves and the mucus in which they are lodged. One may often see them coming away in large balls as the result of purgatives; and, until they are thoroughly cleared out, little benefit can be expected.—*Boston Medical and Surgical Journal.*

Urinary Incontinence.—A female child aged two and a half years had suffered urinary incontinence for several months. Under usual hygienic treatment she gradually grew worse. There were no deformities of the parts. Chemical and microscopical examination of the urine gave evidence of no abnormal condition. Petroselinum (parsley) relieved in one week.—*North American Journal of Homœopathy.*

Action of Viburnum Opulus.—This drug proves invaluable in congestive and neuralgic dysmenorrhœa, and often gives relief in the membranous and obstructive varieties. It rarely fails to give prompt results, but unfortunately its action seems to be more palliative than curative, as the conditions usually return after three months.—*Medical Era.*

Orchitis.—Paint the upper part of the scrotum and the tract of the spermatic cord with ten drops of guaiacol, and keep the parts uncovered half an hour. Subsequently apply compresses of hot water. Apply a mixture of ichthyol and lanolin, one and three parts respectively, at night.—*Medical Press and Circular.*

Iris Versicolor.—For the last three years I have been trying this drug in cholera infantum and eczema, with great success. I have kept clinical records of the cases I have treated, which I shall publish as soon as circumstances permit.—R. K. Gosh, in *Homœopathic Recorder.*

Treatment of Diphtheria.—Wickers recommends sodium hyposulphite as an adjuvant to the general treatment. He employs a saturated solution, mixed with an equal amount of glycerin, to be applied once or twice a day.—*Centralblatt für Innere Medicin.*

Asafœtida.—The tincture, combined with milk of magnesia, furnishes the best remedy for colic due to intestinal acidity. As a diffusible stimulant in catarrhal pneumonia and capillary bronchitis it is exceedingly valuable. —*Pediatrics.*

Tonsillitis.—I have found that one-half drop of croton oil, applied daily to the affected tonsil with a probe, will permanently cure suppurative tonsillitis. I proved it in my own case, among others.—Cobbs, in *Medical Brief.*

Amenorrhœa.—Anemonine in doses of $\frac{1}{60}$ grain every two hours, will be found almost specific.—*Exchange.*

Pediculi.—Oil of sassafras will destroy not only the vermin, but also their ova.—*Cincinnati Lancet Clinic.*

Medical Progress.

THE PLACENTA.—Though an organ of complex arrangement, the placenta is composed of the simplest elements, and when its purpose is fulfilled it is shed—in other words, it is a caducous organ. All caducous structures commence to degenerate for an appreciable time before they are cast off; indeed, the immediate cause of their shedding is that they are degenerated.

A retained placenta is one that remains *in utero* after the death of the fœtus, irrespective of the period of gestation to which it belongs or the length of time that has elapsed between the death of the fœtus and the evacuation of the uterus. The two factors of chief moment are: the morbid condition which led to the death of the fœtus, which may have directly affected the placenta; and the arrest of the fœtal circulation, *i. e.* the death of the villi. The first may be termed primary changes, the latter secondary. When the changes are far advanced the difficulty in distinguishing primary from secondary is very great.

There are two groups of cases, viz.: those where the placenta has been retained for only a short time after the death of the fœtus, which is born in a non-macerated or but slightly macerated condition; and those in which the placenta has been retained a considerable time and the fœtus is considerably macerated. In the latter the primary changes are obscured by the superimposed secondary changes, so that the best opportunity offered for studying occurs in the first group. The secondary changes, on the other hand, are invariably most pronounced in the second group, though their beginnings may be found in the first.

When the fœtus perishes, the placenta may remain attached to the uterine wall, and the maternal circulation through the intervillous spaces continue, although the fœtal circulation through the villi has ceased—although technically dead, therefore, the villi remain in contact with the maternal blood and are thus preserved from decay, so much so that after retention of several weeks, areas of villi may be found which can scarcely be distinguished from those of living placenta; at the same time the villi will not show the least sign of growth or multiplication, and in retained placentas signs of recent activity are altogether wanting.

The condition of the extra-placental tissue forms a marked contrast to that of the placenta. The membranes, the cord, and the tissues of the fœtus necrose with rapidity because there is nothing to preserve them from the fate of dead organic matter. Where the maternal circulation through the intervillous spaces is maintained, no marked change occurs in the placental villi, but as that circulation is arrested and the villi become cut off from the maternal blood they perish.

Regarding the arrest of the maternal circulation, the changes which result in the villi, and the changes in the extra-placental tissues, it may be demonstrated by microscopical sections that the arrest of the maternal circulation occurs by a process similar to that found described in connection with the formation of white infarcts in the living placenta; therefore it is necessary to examine with great care evidence adduced in support of the doctrine that a vital process such as cell-proliferation can occur in fœtal tissues after the fœtus itself has perished. The obliteration of the intervillous spaces in the retained placenta is apparently due rather to progressive failure of the maternal circulation from shrinking of the uterus and loss of the stimulus of the growing ovum than to fœtal arterial changes. The maternal blood clots more readily and deposits fibrin more freely than in the living placenta.

The intervillous spaces are first obliterated around infarcts and upon the fœtal and maternal surfaces of the placenta; in this manner the retained placenta becomes extensively consolidated and its tissues display microscopical characters closely allied to those of infarcts and differing widely from those of spongy placental tissue.

I have never succeeded in finding any true connective tissue formation; without vascularization there can be no true formation of connective tissue, and I do not believe that any ever occurs. On the contrary, I assume that the blood-clot undergoes the usual necrotic changes, and ultimately breaks up and disappears. Although the obliteration of the arteries is regularly distributed, the placenta which has been longest retained is usually the one most extensively consolidated. The changes in the villi are practically the same as in the middle and inner zones of large infarcts in the living placenta; they undergo atrophy and necrosis, lose their epithelial covering, then their connective tissue, stroma and blood-vessels, and finally their nuclei. In addition large areas of placenta may become consolidated by the process of non-fibrinous infarction. Extensive fatty degeneration usually occurs in consolidated areas, and calcareous deposits are also abundant.

The most frequent cause of death of the fœtus in the earlier months of gestation appears to be some pathological condition of

the decidua, and one must be very careful to distinguish between primary and secondary changes. In retained placenta of the fifth month or later the compact layer is generally fused with a superjacent stratum, consisting of several rows of villi imbedded in fibrin and blood-clot, its structure being barely recognizable; the spongy layer, as a rule, however, is much less altered, but generally thinned and atrophied, though the characteristic decidual cells are distinct and the vessels often full of blood. The process of fibrinous degeneration never affects the spongy layer except to a very slight degree, which is a point of considerable importance, seeing that any process tending to consolidate this stratum would invariably render separation of the placenta difficult. The amnion is always necrosed after the death of the fœtus, though the changes proceed less rapidly over the placenta than over the extra-placental chorion —the latter, and the decidua vera also, in all cases are longest preserved in the neighborhood of the placental margin, and perish soonest in parts most distant from it.

The changes in a retained ovum which follow death may be summed up as follows: necrosis of the body of the fœtus, of the umbilical cord, of the amnion and of the extra-placental chorion and decidua vera, commencing at once; gradual arrest of the maternal circulation through the placenta by thrombosis of the intervillous spaces; necrosis of the various divisions of the placental chorion as they become cut off from the maternal blood; fatty and calcareous degeneration of the necrosing tissues.—T. W. Eden, in *Medical Press and Circular.*

Ars Laboris.—Physiology tells us that the portal tract delivers to the blood the materials of the food so altered as to be ready for assimilation, and that the tissues, absorbing these for purposes of repair, return substances fit for excretion. That this, which has been well called the second digestion, may take place in due degree, the tissues must be active, the mills of the body must be in full work, destruction and repair must always be in process. In the muscles, which form more than one-third of the whole body, the chief part of this manufacture is carried out, and their exercise is, therefore, a necessary means to health.

But exercise needs to be conducted with care; it is not good at all times, nor in all degrees. Many suffer from lack of it, many from using it indiscreetly. To be tired hurts few; to be tired out hurts most of us. Sudden effort is necessary to avoid danger, but is always a danger of itself. Great effort needs gradual training, or the heart will yield; after long inaction, to make great exertion unprepared is to court death. To a full stomach gentle exercise is serviceable, severe exercise is harmful. If a man be exhausted, whether in mind or body, he needs rest, not exercise; if he eat at all it should be sparingly, for exhaustion stops digestion. So much for circumstance; and the like for age. The young bear strain, for they are pliant; the old, being brittle, break. Quick movements are natural to the young, to the old often fatal. Extremes of heat and cold can be answered while the vessels are elastic, but rigid arteries allow readily neither the spending nor the saving of heat.

Exercise should be with pleasure; it is for recreation. When it relaxes not the mind the body is not strengthened, of which great mystery he who takes most note, and least offers explanation, is the best physician. The mere motion to a place is not enough, unless to move is gladness simply, as oftentimes it is in sunshine for the beauty of it, and in storm for the pleasure which the contest gives. A man will say he takes enough exercise because, rising late, and eating a full meal in too short a time, he walks at top speed to his station or office; another, because when exhausted with the day's work he forces himself to walk a long way home. The one hurries, the other fatigues himself; neither effort is the exercise that brings health, but each is a strain that often causes disease. So it comes that there is a philosophy of exercise, and its practice should be varied to each age and condition of life.

The young naturally seek it in games, but town-dwellers cannot always nor easily find these, and many who yet have sound bodies and strong muscles have not the speed which games require. To such the gymnasium is invaluable, and to all it is of use. No game gives such grace and strength, nor does any develop the body so equally or so completely. Many a game-player is an awkward, ill-formed man, but gymnastics give ease and balance born of complete muscular control. A game takes half the day, which cannot be often given, but all can spare an hour for the gymnasium, and can swing their clubs at home. It is beautiful work, too; a good gymnastic display is as fine a sight as any need.

Men of middle age have not the speed for quick games, nor the suppleness for gymnastics; yet they eat and drink more, and more richly, than the young, for the pleasures of the table outlast others, and, following neither fame among men nor love of women, they sit long over meat and wine. For these, exer-

cise is at once more necessary and more difficult to prescribe. Games where speed is less than skill—golf, bowls, croquet, and the like—are good for them. Billiards after meals will often make the difference between good and bad digestion. Horse riding quickens the intestines which in them are inactive, and relieves the headache and foul tongue of the bilious temperament. Bicycling is a more general and a stronger exercise, yet it does not so strongly affect these symptoms. It is better for the pale or plethoric than for the bilious. Walking is good for all. and especially for him whose heart acts weakly. It is, moreover, more pleasurable in age than in youth, for youth thinks of itself, but age takes pleasure in natural sights and sounds. Yet many men will, for no bidding, either move more or eat less, for sloth covers the fear of death, and greed overcomes it. Such must at times be sent where change of scene and hours will tempt exertion, change of food relieve the stomach, and a copious supply of that fluid which they least affect, mingled with salts of ill flavor, to win faith from fools, shall purge their body of its grossness.

Old age needs little exercise; sunshine and good company will find an old man in digestion. He needs restraint more than incentive, for the memory of his youth is fresh upon him, and he will not willingly be less than himself. His household are all trained diplomats, and employ the intrigue and mendacity of State affairs to prevent him from riding the young horse or from walking to church in foul weather. It is the physician's task to aid these efforts with authority, and to see that the old man's machinery works with as little friction as may be.

Lastly, there are those who by accident or disease are condemned to a perpetual rest. Even to such we can bring exercise or its effect, for massage and movement of the limbs will propel the current of the blood, and awake the intimate activity of the muscles. We cannot supply all that Nature fails to give, but we can correct the balance enough to make a great difference to the sick man.—*British Medical Journal.*

Old-time Remedies. — In these days of modern ideas and modern ways of doing things, many progressive physicians are inclined to leave behind or forget many of the old tried measures and remedies which they have used successfully in treating disease. Many physicians of middle age made their reputations in treating disease with old-time remedies, before the new ones of to-day were even thought of. That many of the newer surgical operations are a great improvement over those practiced a few years ago, no one can doubt, but it is also true that many of the medicines and palliative measures in vogue a few years ago are equally as good in the treatment of disease at this time. In the eager desire to adopt new methods, and particularly surgical ones, physicians are forgetting the old and well tried ones.

A well known surgeon of London, England, was called upon to treat a lady suffering from uterine hæmorrhage—menorrhagia; the hæmorrhage was so frightful and had been so long continued that he despaired of saving her life. He explained to her that the only thing that could be done for her would be to perform the operation of hysterectomy. To this neither she nor her friends would consent. Finding that he would not be permitted to perform the operation, he concluded to try an old-time medicine—infusion of digitalis. He did so, controlled the hæmorrhage, and now, although about twelve months have elapsed, the woman is to all appearances well; at any rate she menstruates every month in a normal way, and eats, sleeps, and is apparently as well as other women.

This is only one of the well known and well tried remedies; there are many others, and it is our belief that if physicians were to study materia medica a little more closely many of the surgical operations of these modern times would be unnecessary. Surgery has its place, but there is also a place for medicine. The beginnings of disease are usually amenable to medicine, and if medicines were properly given much of disease would never reach the point of requiring the use of the knife.

Of all people in the world, a practitioner of medicine, whether physician or surgeon, should be liberal, broad-minded, and far-seeing. He should use the knife when necessary, but should use the simpler and less hazardous means of curing disease by medicine whenever possible. To do this he should know the action and province of every well known drug as well as he knows how to perform a surgical operation.—*St. Louis Journal of Homœopathy.*

The Sunday Penalty of Irregular Feeding.—The dyspeptic is cautioned and advised by his physician to take his meals at absolutely regular intervals, not only as a treatment of existing evils but as prophylactic against future disorders. One indiscretion of irregularity in such cases often causes the patient a week of misery. If this

regimen is a standard prophylactic with confirmed dyspeptics, how much should any one in our artificial civilization allow himself to deviate from so simple a rule, when an absolutely normal stomach at all times is almost unknown?

Yet this very invitation to gastric disorders is issued every seventh day by ninety-nine per cent. of the people of this country. Once in seven days comes our so-called day of "rest"—the day on which the three regular meals at morning, noon and night are replaced by a vicious system of late rising and abstinence, followed by gluttony. The gastric secretions know nothing of a seventh day of rest. They are ready at the customary six-day morning-breakfast time, but no food comes to them and they are absorbed. A second period of the day comes and the same process is repeated, with the additional injury that from two to four hours after the customary meal the stomach is loaded unusually full of food, whereas the secretion is no longer there in sufficient quantity to digest it. The result is the regulation Sunday afternoon discomfort of gourmandizing, with the accompanying absence of appetite for the evening meal. What wonder that the following day is "Blue Monday!"—*Philadelphia Medical and Surgical Reporter.*

Melanosis from Arsenic.—Schlesinger recently presented before the Medical Society of Vienna a man who had received Fowler's solution for some time on account of a lympho-sarcoma of the axilla, and who, in consequence of this treatment, had developed a dark coloration of the skin. After taking the remedy for a second time for a new crop of enlarged glands, the discoloration of the skin became aggravated more and more until it was nearly black.

Melanosis from arsenic is by no means rare; sometimes it sets in rapidly, even in fifteen days after commencing the drug. Sometimes it is preceded by a scarlatiniform exanthem. The mucous membranes are never affected. If the remedy has not been continued too long the discoloration will disappear on discontinuing the drug.—*Münchener Medicinische Wochenschrift.*

Fractures of Trachea and Larynx.—The Cauvin case, recently decided in France, calls attention to the fact that the trachea and larynx are very easily fractured, especially in the aged, and that a slight accident or moderate violence is sufficient.

A woman of eighty-two was strangled, and the first three rings of her trachea fractured. A girl of fifteen was the other inmate of the house, and she denounced the heir as the murderer, and, as it seemed impossible that a young girl could have caused the lesion unaided, the heir was condemned, and appeal to a higher court only confirmed the decision. While he was awaiting removal to the penal colonies, the girl confessed and proved that she had unaided committed the murder.—*Journal of the American Medical Association.*

Menstrual Skin Eruption.—A girl aged twenty-three, was admitted into hospital for ulcer of the right tonsil, at first believed to be syphilitic; but this healed spontaneously. She was watched in hospital for over five months, and at every period a maculo-papular exanthematous rash appeared, breaking out symmetrically on the shoulders, back and elbows; on one occasion there was also an eruption of herpes on the tonsils and right labium. The rash faded slowly, and some of the papillæ underwent desquamation. This was distinct in feature from any syphiloderm and from lichen ruber, and inasmuch as it appeared synchronously with each monthly period, it would seem proper to designate it "lichen menstrualis."—*British Medical Journal.*

Rhythmic Nodding of the Head in Aneurysm of Aortic Arch.—In two cases of aneurysm of the arch of the aorta, I observed a rhythmic nodding of the head occurring synchronously with the heart-beat; these movements were augmented in intensity by having the patient throw his head back. This symptom I am inclined to ascribe to downward traction of the left bronchus and trachea during the systole. It must not be confounded with regular muscular contractions nor the rhythmic nodding of certain nervous diseases.—Teletti, in *Medical Week.*

Distinctions Between Human and Animal Blood.—On mixing the blood in question with a little bile, there are formed crystals not exceeding 0.003 meter in size. Those of man are right rectangular prisms; those of the horse, cubes; of the ox, rhombohedrons; of the sheep, rhombohedric tablets; of the dog, rectangular prisms; of the rabbit, tetrahedrons; of the squirrel, hexagonal tables; of the mouse, octahedrons; of common poultry, cubes modified at their angles, etc.—*Scientific American.*

The Medical Age.

VOL. XV. DETROIT, JANUARY 25th, 1897. No. 2.

Original Articles.

THE BEST METHOD OF SEWAGE-DISPOSAL ON FARMS AND IN SMALL COMMUNITIES.

BY B. C. BRETT, M.D.

Sewage is usually defined as refuse or waste matter suspended or dissolved in water and conveyed away by sewers. For the purpose of this paper the word "sewage" is designed to include all refuse matter which might be conveyed away by sewers if they existed, but which in the absence of them is disposed of in some other way. As any system of sewage-disposal which is applicable to the farm may be equally so to individual houses in small communities, I shall simply describe what appears to me the best method for the farm.

It must be granted, I think, that under favorable conditions there is no way to dispose of sewage so good as by sewers. I believe that the introduction and successful management of house-sewers, even by many small farmers of very moderate means, is entirely practicable. Although a great convenience, it is not indispensable that there should be a system of water-supply in the house in order to secure the successful working of a house-drain. In the first place every farmhouse should be situated upon a rise of ground above the stables and other outbuildings in order to facilitate safe and rapid drainage, toward a stream of water if possible. Let it be supposed that a farmhouse so situated is occupied by a family possessed of some refinement and good taste, of a fund of general information including some knowledge of hygiene, and that they have a desire to live decently, but have only limited means. They have discussed the dangers of the privy vault and realize that its existence is a constant menace to health and a relic of semi-civilization quite intolerable. They have learned that a kitchen-sink with its drain leading outside and ending in a sink-hole or cesspool is even more dangerous than a privy vault. They have read that the refuse matter contained in the vault and cesspool if deposited over a considerable area of ground surface, or under the surface but within ten to twelve inches of it and therefore within easy reach of oxygen and microbic action, soon becomes innocent and inoffensive, and that even its filthy water becomes as pure as a meadow brook. They find by inquiry that a siphon closet can be flushed by a pail of water, and that if they have a warm corner in the house where the temperature will not freeze the water-seal in its trap, they can have a water-closet even though they have no constant water-supply. They learn that a kitchen-sink will always have water enough to flush its trap and will therefore be easily cared for. They find that a four-inch vitrified sewer-pipe is not very expensive, and that if laid with cemented joints and no rough inside projections, and with a good, true inclination, it will be a durable affair and likewise self-cleansing. They conclude that an iron sink with non-siphoning trap, and a siphon water closet, with iron pipes to properly connect them with the vitrified sewer-pipe outside the house, will supply all the actual needs of a comfortable home. They have decided that the sewer shall terminate some twenty rods below the house in several branches, each connecting with a few rods of tile drain laid with open joints four inches below the surface. They decide to underdrain the area where the sewer terminates in the tile drain so that the surface may not be too moist for vegetation, and that the waste water which may find its way from the tile drains near the surface to the underdrains, may run away to the brook below as sparkling, limpid and pure as the water in the brook above it. All

of this and much more has been learned by consulting some work, perhaps the little book by Geo. E. Waring, Jr., on "How to Drain a House." They find that the expense of the sewer and the two inside fixtures mentioned is within their means; they build it expecting in a few years to be able to add a water-tank in the attic, to be supplied daily from the well by a hand force-pump in order to lighten the labor of flushing the closet by hand at each time of using. They know that closet and sink and sewer must have daily care that they may not become dangerous to the health of the household, but they are willing to undertake this care for the comfort which it insures.

Of course, there are many farmers who are able to have artesian wells and machinery to pump water to a supply-tank in the the upper story of the house, and such can have all the conveniences that their urban brethren enjoy. For these the best method of sewage disposal is by sewers terminating in surface or sub-surface tile drains, its purification being accomplished by bacterial action in the soil. But for by far the larger class of farmers, those of quite limited means and unfavorable location, the question of sewage-disposal in the best way, from a sanitary standpoint, is not so simple. Among the most ignorant of this class we too often find the house situated in a hollow with the privy vault and barn above it, and the well which supplies water for both house and barn located between the buildings near the edge of the barn-yard. This arrangement is sure to bring disaster to the occupants of both house and barn; and to him who could be content to live in such surroundings, death must come before education could penetrate his dense ignorance of sanitary laws. In the example of his superiors there is hope for his children, if fortunately they survive. By setting aside the extremes of farm life, we know that upon the premises of those who suppose that they live decently, the privy vault, and the kitchen-sink with its wooden drain and slop-hole, are almost invariably found. Now as these are the abominably putrid receptacles of the sewage of the house, how shall we abolish them and create the best possible substitute?

Before attempting a solution of this question I will state that sewage of any kind is inoffensive until it commences to decompose; hence the necessity of early removal before decomposition commences, or of the addition of material suitable for the absorption of gases during incipient fermentation before removal is possible. The waste wash-water of a house can be disposed of by pouring it broadcast on porous ground where it rapidly dries or is absorbed; a week's time suffices to purify the ground by bacterial growth. It is better, however, to pour it over a large pile of broken stones composed of pieces of from one to two inches in diameter—the large surface area of the broken stones causes the thin film of dirty water which covers it to become freely exposed to the air, and its oxygen favors rapid bacterial growth and decomposition of the soapy water, preventing putrefaction; hence no unpleasant smell or appearance as occurs when such water stands in a hole in the ground. This stone pile could be so saturated once or twice a week, not oftener, for fifty years and never become offensive, provided the ground beneath should be so porous as not to allow a pool of water to remain from day to day beneath the stones. The water should not be too near the boiling-point when poured out, lest the microbic action be retarded by too high a degree of heat.

In relation to the disposition of sink-slops: The sink should be connected with a non-siphoning trap, and this by a lead or iron pipe to a four-inch vitrified drain-pipe well laid with cemented joints well smoothed inside, leading by a true gradient to a system of branching tile drains; the latter should be laid with open joints nearly on a level, and in parallel rows eight feet apart and four inches beneath the surface. This area, which is for the absorption and putrefaction of the sewage, should be situated several rods from the house. The soil in which the drains are laid should be porous, or if of clay, should be underdrained four feet deep and eight feet apart, and between the upper rows of tiles. The trap under the sink and pipe connecting it to the cemented drain outside of the house should have ample protection from frost; the entrance to the trap at the bottom of the sink should be securely grated to exclude anything which would clog the trap. A house-drain to which only the kitchen-sink is attached, need not necessa-

rily be a four-inch pipe; a two-inch one, in my belief, would be ample, and perhaps better than the four-inch one, but it would require far greater care in laying to a true gradient, and in having no projections of cement on its inner surface. This drain would need no trap outside of the house and no fresh air inlet; the non-siphoning trap being the only fixture connected with it, I believe there would be no need for a vent-pipe extending through the roof of the building. The sink-trap, however, would need the daily and thoughtful care of the housekeeper, as does any fixture and drain in any house, whether in country or city. Rain-water from the roof should be excluded from this drain because the flooding of the tile drains at its termination would interfere with their drying out at intervals and would therefore retard bacterial action.

I now come to the substitute for the privy vault. For this I prefer the "dry earth closet." If this closet is to be a success, there must first of all be a plentiful supply of dry earth (or earth which will become dry) stored in the summer for the whole year. Loam is the best material, sand being for this purpose worthless. It should be stored in a dry place raised from the ground, and convenient to the privy. This storage must be as much a business in its season as the storing of ice in its season. The vault, if there is one, should be cleaned and filled with earth. The privy should open from the woodshed, or from some other outhouse, so as to be sheltered from wind and storm. The receptacle for excreta should be a strongly constructed box six feet long (or of length to conform to width of building), three and one-half feet wide at top and three feet at bottom; made of thick oak planks, sides, ends and bottom, with water-tight joints, spiked together, iron-bound, and its bottom fastened permanently to two runners on which it should rest when in place under the privy seat. It would be well to have two of these boxes so that they might at each interval be exchanged. There should be no excavation of the ground beneath the privy. The box setting on level ground, supported on its runners, when nearly filled could be easily drawn away by chains attached to staples on the ends of the runners, and its contents buried in the soil or in the compost heap. The privy could well occupy one corner of the shed at some farmhouses where there is shed room to spare; that it should be made as warm and comfortable as possible goes without saying; in one corner of it should be stored in a box several bushels of the dry earth before mentioned, and a shovel always there capable of taking up two quarts of this earth for deposit upon the excreta immediately after each evacuation. Enough earth should be used to prevent all odor and absorb the moisture, and if the earth is dry, less is required for this purpose than one would suppose.

Such a closet has been made to deposit the earth automatically, and it can be made so inoffensive as to be placed in any room as a common article of furniture. The dry-earth closet is no experiment; it has stood a fair trial in this and other countries, and when well and carefully managed has been found to be a great advance over the vault system. In conclusion I will add:

That the best system of sewage-disposal easily becomes the worst by neglect of details in properly carrying out the plan proposed:

That there are few subjects in which there is so little interest taken or so much ignorance displayed by the average farmer or inhabitant of a small community, as in that of the proper disposal of sewage:

That general improvement in the methods of sewage-disposal can be realized only after general diffusion of knowledge on the subject has been accomplished:

That the diffusion of this as well as all other sanitary knowledge among this class of people must be accomplished mainly through the efforts of the medical profession.

Green Bay, Wisconsin.

FUNCTIONAL IMPAIRMENT OF THE AUDITORY CENTRE AS THE RESULT OF CATARRHAL DEAFNESS.*

BY J. ALOYSIUS MULLEN, M.D.

The treatment most applicable in chronic catarrhal deafness for the restoration of hear-

*Read before the Texas State Medical Association.

ing, and at the same time the one most productive of salutary and permanent benefit, is a most perplexing and unsatisfactory question. More particularly is this so in regard to the summing up of the indifferent results that ordinarily follow the most conscientious and scientific course of treatment; also the minimum amount of good accruing to patients—frequently so imperceptible that it becomes conspicuous only by its absence, and impresses with the fact that the means at command are painfully inadequate.

It is extremely unsatisfactory, after having resorted to local applications, medicated inflations of middle ear, dermal use of electricity, naso-pharyngeal and intra-nasal medication, that in a great proportion of cases the patient should return suffering from the previous catarrhal deafness, slightly mitigated, to be sure, but still with an appreciable curtailment of his auditory sense. In a fair percentage of these cases it is rational to suppose that the ungratifying results are not invariably due to any failure in the proper medicinal and mechanical applications at hand, or to the incompleteness of the technique of aural surgery, but to two causes: One acting locally, centripetally, as a mechanical obstruction or pathological entity: The other entirely centrally, purely cerebral, and functional in character, not being directly connected with any portion of the temporal ear.

The first may act anywhere between the auricle and the point of entrance of the terminal filaments of the posterior division of the internal capsule at the auditory centre; it is a very prolific source of trouble, made manifest by retraction with thickening or thinning of the membrana tympanum and adhesions of the latter to the walls of the tympanum; by tumors and atresia of the external auditory meatus; stenosis of the aural safety tube; purulent, serous or catarrhal exudate of the middle ear; false membrane on tensor tympani tendon, or atrophy, fatty and fibrous degeneration of its muscular tissue; more or less numerous vicarious deposits of inflammatory tissue, whose arrangement partakes of the miraculous; permanent agglutination of the stapes to the foramen ovale; and the occasional presence of otolithic concretions with the slightly more frequent hyperostosis and filling up of the tympanum by lymph, and infrequent involvement by continuity of the labyrinth and cochlea. Any and all of these, and other not mentioned mechanically obstructive causes, by interfering with the free transmission of wave-sounds, can break the auditory circle and materially obtund physiological cerebral hearing.

While one may be confident of removing tumors, atresia, etc.; hopeful of draining the purulent, serous, or catarrhal inundated middle ear; expectant of allaying the inflammatory conditions producing stenosis of the Eustachian tube; he is less sanguine of rendering patent the elasticity and freedom of motion in the anchylosed joints of the tympanic bones, or of the absorption of the vicarious fibrous adhesions seriously impeding and dispersing the sound-waves to the sonorous cavities of the middle ear.

The auditory, although not so permanently settled upon as the optical, circle, is however sufficiently clear to enable one to trace with considerable accuracy a sound-wave along its path of transmission to the centre of the audition. Wave-sounds are first collected by the auricle with inclination of the listening ear for transmission to the external auditory canal and membrana tympanum, the latter being sent into vibrations by the impact of the wave-sounds; the impulse is then conveyed to the chain of bones across the middle-ear cavity to the membranum ovale, which in its turn produces rhythmical vibrations of the labyrinthian fluids, sensibly affecting the end organs of Corti, the result of which is conveyed along the auditory nerve (cochlear branch) to the ventral nucleus, and to the tuberculum acusticum by one route direct across the raphi to the fillet, and by another through the corpora trapezoides to the superior olive of the opposite side; a juncture is effected at the fillet, thence through posterior corpora qaudrigemina traversing the brachia conjunctiva posterioris, to reach the geniculate body, finally passing along the posterior division of the internal capsule to eventually terminate in the cortical centre of audition as a physiological culmination of hearing. From this more or less incomplete cycle it can be readily conceived that any obstruction—primarily with the complete or partial collection of wave-sounds; secondarily,

with their uninterrupted conveyance through rhythmically vibrating the fluids of the labyrinth; and thirdly, any pathological condition internal to the tympanum (*i.e.*, as the cochlea, labyrinth, etc.); or any pressure, solid or fluid, upon the eighth nerve, its nucleus or fibres of communication with the cortex — will partially or completely cut off auditory communications from the centre of hearing.

A break in the continuity of any portion of this most intricate arrangement for the transmission of wave-sounds would radically preclude the possibility of the complete enjoyment of normal audition; in other words, the aural pathway would become impassable, and the delicate sound intonations fail to arrive at their destination for appreciation and interpretation. The second cause to which reference has been made is purely cerebral in character, associated with, but dependent for its birth and existence upon, all the pathological findings in chronic catarrhal disease of the middle ear, or atresia of the external auditory canal; it would seem to be a result primarily, but secondarily becomes a potent factor ever acting and vigilant to misdirect and frustrate all efforts for the amelioration of the conditions which so harass the catarrhally deaf.

It is a very conspicuous fact, and its general prevalence is made apparent by simply referring to it, that persons who have become deaf from chronic catarrhal inflammation of the middle ear are habitually indifferent to the small daily occurrences which it is the duty of audition to appreciate and interpret. They are, as it were, isolated from the world; one avenue for procuring knowledge entirely cut off; and in so far as the sense of hearing is concerned are dead among the living. To be sure there are times when there is a temporary awakening, the means for the production of which are always at hand and easily procurable, but they are never utilized solely for this purpose, but incidental to the noises of the itinerant.

When any part of the body is either mildly or severely injured, and there intervenes a period of suspension of use during which time the injured member is rendered by the disability unable to perform its accustomed work, there follows a gradual but steadily progressive return of the temporarily lost function of the member to its pre-traumatic utility, the completeness of the latter depending upon the degree of damage sustained.

The infant learns to walk and stand erect unaided by the complete education and full development of his co-ordinating powers, only perhaps to be reduced to his infantile level at puberty, perchance, by an attack of typhoid fever, after which he must again pass through the cycle of re-educating his co-ordinating sense. In concomitant convergent strabismus in the young hypermetrope (in which the squinting eye, according to Schweigger, has become amblyopic from lack of being synchronously used with its fellow of the opposite side), if properly corrected when first detected, functional activity will be secured; but as time rolls on its use is annihilated. Complete or partial cessation of functional activity in an organ is normally followed by the return of the function to its former virility, providing the cause has been removed, or is not active in its interference with the physiological use of the organ. Now, if this loss of function of an organ extends over a long period of years, the organ gradually loses the faculty of its existence, and the subsequent restoration to complete functional power is impossible. If the loss extends through successive generations, Dame Nature gives an illustration in which not only is the function forfeited, but the organ itself receives no embryological stimulus, and is dropped from the economy,—the piscatorial inhabitants of the Mammoth Cave, Kentucky, afford a living epitome of this universal law.

If this complete loss of function and the non-development of the organ can be produced by natural laws, no one will surely attempt to deny that there is a greater possibility of the gradual loss of function occurring when incited by some pathological inhibitory condition, such as the changes in structure and position, the result of otitis media catarrhalis chronica.

Suppose, for example, we have a case of double traumatic cataract, and the patient grows to manhood without either opaque lens being removed. In the interum objects are seen by others, but not by him; the sun

shines brightly to others, but, alas! dimly to him. The cause of this blindness is apparent: Objects cannot be focused on the retina, consequently all cerebral vision is precluded; the visual centre has not seen in years, and when once more the flood-gates of light are opened, the brain fails to interpret the objects thrown upon the retina—the sensibility of the latter has gone, and the function of the visual centre is lost forever.

All are familiar with the fact developed not many years ago in the education of deaf mutes to produce articulate speech, viz., that all children seemingly born deaf and dumb were not necessarily dumb; but in many instances, because their speech centre had no means by which it could functionate, and further failing to receive supplementary assistance of the auditory centre, it had never been awakened into functional life. The marvellous results attained among these poor unfortunates, and the possibilities of articulate speech in the future, have stimulated intelligent energy in this humane department of education. Tommy Stringer, of the Perkins Institute,* was born blind, deaf and dumb, but has been educated to use his speech centre, and he, like the person with double infantile or traumatic cataract, would have lost the faculty of developing his speech centre from non-use, if no efforts had been made to exercise, as in the former case.

It is to this gradual inhibition of functional activity operating in the catarrhally deaf that most of the unsatisfactory results in treatment are due. The centre of audition has been in a soporific condition induced by the mechanical obstruction offered to the natural and ordinary avenue of keeping it in auditory touch by aërial conduction.

To render this *modus operandi* more apparent, suppose the ordinary case of chronic middle-ear catarrh is followed through its various general stages in its abolition of hearing. There may or may not be present the results of an inflammation of the cavities of the upper air passages; there has been a gradual inception, conscious or insidious, of a catarrhal inflammation of the tympanum, which has left its structural changes in a more or less completed condition; there is felt tinnitus aurum in its diversified presentation, permanent or temporary, depending upon the retraction of the membrana tympanum and inward pressure of the conducting ossicles, with the formation of vicarious fibrous tissue which, in its history of contraction, forces the ear-bones out of their line of conductive continuity. The mucous membrane of the tympanic cavity has undergone various pathological changes; the labyrinthian fluids are being pressed into a smaller space; and constant irritation of the terminal filaments of the portio mollis is the result. The whole intra-tympanic portion of the auditory apparatus has undergone positional changes and, which is more serious, it has lost its functional activity for constantly transmitting aural waves.

Instead of being free and movable, capable of instantly transmitting sound waves, well primed for functional activity, the drum is retracted and adherent to the tympanic walls, its anatomical features hardly recognizable owing to the pathological ravages, and the avenue for the transmission of wave-sounds perceptibly cut off. If this mechanical obstruction persists for years, the inevitable result will be the gradual loss of the sensitive functional appreciation of the end organs of Corti, — the channel by which the wave-sounds are transmitted is now transferred to the cranial bones, and bone conduction has been substituted for aërial conduction.

As non-use, inhibition, or loss of functional activity in the extremities is followed by atrophy, the degree of which depends upon the length of time and degree of the impaired or lost function, the suggestion becomes pertinent that the same process may also occur in the auditory centre after years of functional non-use.

I am not aware of any post-mortem evidence to substantiate the supposition of atrophy of the auditory centre from non-use, nor have I ever known of any examination of the cerebrum of persons catarrhally deaf for years. *En passant*, no authority refers to functional obtundity of the auditory centre as a result of a long continued mechanical obstruction, the effect of chronic catarrhal inflammation of the middle ear; and in no authority at hand is found any reference to the utilization of this fact as a

*Perkins Institute Report, 1895, Boston, Mass.

means for the cure or amelioration of the state of catarrhal deafness. Dench states:*

> If the nerve is allowed to remain inactive for a long period, as where serious obstruction to sound conduction has rendered the ear of little practical use, it is found that even after the removal of the obstruction and the restoration of the conducting mechanism to a normal condition, the function of the ear is imperfect from the fact that the *nerve* (writer's italics) has been so long at rest that it is not able to subserve the purpose for which it was designed.

The quotation is complete, further substantiating the loss of function, only I am of the opinion that the obtunded function is in the auditory centre, and not wholly in the portio mollis.

The question which naturally arises and most interests at this stage of the inquiry is, how far is it possible and practicable to apply deductions so that a permanent improvement of hearing in the catarrhally deaf may follow the removal of the mechanical obstruction, whether by non-operative or operative means?

The first step is applicable only to the patient. He must be impressed with the fact that he can be of inestimable assistance in all efforts to restore hearing; he must be directed to cultivate the habit of listening for sounds, principally those of conversation, no matter whether the subject is one of interest to him or not; the object to be gained is that by constant, concentrated and fixed attention he may spur into activity and functional life the sleeping auditory centre; at the same time suggest to him that he converse in a louder tone, so that, as it were, he will be heard by himself, for as is well known, with the gradual loss of hearing there likewise ensues a progressive change in the character and intensity of the voice, until finally the individual is not heard by himself, and with difficulty by anybody else. The constant application of will-power will bring about the concerted action of the supplementary senses, thus inducing a more active mentation which can only have a salutary effect in stimulating the centre of hearing to a lively appreciative sense. The general usefulness of this procedure will depend in a great measure upon the complete or partial removal of the mechanical obstruction, such as impaction of the stapes to the foramen ovale, retracted and adherent membrana tympanum, and anchylosis of the articulations of middle-ear bones; and naturally it will be of more utility in those cases where the drum, or one or all of the ossicles, have been removed to overcome the obstruction to sound-waves. It is of very great importance in soliciting the patient to exert some effort to control his attention to bear in mind the five laws which control and regulate attention; thus:

> Bigness regulates the force of attention:
> The intensity of the sensation influences the amount of attention paid to it:
> The degree of attention paid to an object depends on the intensity of the feeling aroused, like or dislike:
> The state of expectancy:
> Law of change—the degree of attention depends upon the amount and rapidity of the changes.

The individual application of these will depend upon the mental and mechanical ingenuity of the physician, and the thoroughness with which he understands the case.

The next step can be used by the aurist only, and consists in external means for the excitation and stimulation of the hearing centre by the use of galvanism through the intervention of the auditory nerve. Galvanism can be utilized for local use by one of two methods:* either the internal or external application. The internal method consists in placing the electrode in the external auditory canal, immersed in warm water (solution salt or plain, according to the apparatus of Duchenne), the other electrode being held in the hand of the opposite side. The external differs from the former in that the electrode is strongly pressed on the tragus, with the other electrode in the hand of the opposite side. The current should not under any circumstances be strong, but mild and quickly interrupted—six milliampères strength is best for a standard, increasing or decreasing as desired. The daily *séances* should not be longer than five to ten minutes; a much shorter time will answer in some cases. Galvanism should not be used unless a rheostat is included in the circuit. The selection of either pole for

* Disease of the Ear, 1895, p. 70.

* Practical Treatise on the Medical and Surgical Uses of Electricity, by A. D. Rockwell, M.D.

introduction into the external auditory canal is not a matter of much importance from the fact that, reasoning *a priori*, it would be inferred that the reaction of hyperæsthesia would call for treatment by the anode (positive) and the reaction of torpidity (anæsthesia) for treatment by the cathode (negative); but experience shows that there is no uniformity to this law. "*The positive (anode) pole is on the whole the more calming, and the negative (cathode) the more irritating.*"*

Data is desired as to whether rapid return of hearing has been observed in cases where catarrhal deafness had existed for only a short time, and where the drum or ear-bones had been removed, thereby doing away with mechanical obstruction, and also in cases where deafness had been present for a long period, and the same operation performed. Again, has even extremely slow improvement in hearing been observed up to a certain point; or has the hearing persistently held its own, or finally receded to its previous stage of obtundity? Burnett, Sexton, Dench, and others failed to enlighten us upon these points.

Houston, Texas.

SOME ALBUMINURIC COMPLICATIONS OF PREGNANCY, LABOR, AND THE PUERPERAL PERIOD.

BY HOWARD J. WILLIAMS, A.M., M.D.

To speak of the albuminuria of pregnancy is to employ a misnomer. Albuminuria is a symptom and not a disease, and like eclampsia, is evidence of toxemia, that presents itself in the blood during gestation, parturition, and sometimes in the puerperal period. Puerperal toxemia, which is one of the most frequent complications of pregnancy, is then the real malady, and its manifestations are numerous, the most common being albumen in urine, and convulsions before, during, or after labor. There are other symptoms and signs of the condition besides these, equally as distinct and fully as dangerous, though not so commonly encountered.

It is present in from six to fifty per cent. of all pregnancies, while puerperal eclampsia, on the other hand, is comparatively rare. Lusk says toxemia is present in one out of every 500 pregnancies,—this, however, is too low; Löhlein thinks it occurs once in every 161 cases in general practice.

From January 1st, 1891, to March 31st, 1896, during which time I preserved accurate statistics of personal practice, I have encountered ten cases of toxemia in 163 pregnancies, two being also cases of eclampsia—a record of six per cent. for toxemia and about one per cent. for eclampsia,—based upon accurate analyses of urine in every case attended.

Puerperal toxemia is simply blood poisoning arising from excess of the products of waste, and is dependent upon insufficient action of the organs of excretion, the kidneys being mainly at fault. That these waste materials should accumulate in the blood of a pregnant woman is not at all surprising, if the dual life existent within her body is remembered, the placenta being lungs, liver, and kidneys for the child. The presence of these waste products in excess can be easily demonstrated by careful examination of urine, where besides albumen will often be found tube-casts, glucose, lactose and acetone, and the excretion of urea diminished; in fact, these may exist independently of the presence of albumen. The diminution of urea in the urine, and its consequent retention in the blood, at one time gave rise to the opinion that this excretion, or its derivatives, was the sole toxic agent; but it is now known that other retained excretions play an important rôle.

Albuminuria, the symptom, may be present in varying degrees from a mere trace up to a very large per cent., but the toxemia will be slow or rapid according to the degree of retention of other excretions from the outset. These variations will be shown by the first three cases I report.

Case 1.—Mrs. R. P——, aged 20, white, multipara; convulsions in her first labor; expected her second confinement in the latter part of December, 1894. During the eighth month she began to suffer from headaches, vertigo, nausea, slight œdema of the legs, and irregular pulse; the symptoms gradually growing worse. The urine was normal in quantity, with a specific gravity of 1020; slight trace of albumen; urea slightly diminished; no tube-casts. Under a mild diet, warm baths and a daily saline purge, the

*Medical and Surgical Uses of Electricity, by A. D. Rockwell, M.D., p. 508; *Ibid.*, p. 599.

albumen disappeared with relief to other symptoms, and she was delivered without complications, December 15th, 1894.

In this case the albumen could only be shown by the most careful tests, and while the urea was gradually diminished the toxemia advanced in proportion to the retention of this waste material.

Case 2.—Mrs. D. Q. A——, aged 42; mother of three children, two dead and one living; one miscarriage; history of convulsions in two previous labors; date of expected confinement October 1st, 1893. Weekly examinations of urine were made, from the third month up to a week before confinement, without finding any abnormal element; but on the 18th of September I was surprised to find it loaded with albumen, and urea greatly diminished. I was then informed she had for several days suffered cramps in the abdomen and lower extremities, slight headaches, nausea, periods of momentary blindness, and urine was greatly diminished as to quantity. I immediately ordered cathartic doses of calomel, followed by saline laxatives, warm baths, hot drinks, and skimmed milk diet. From the 18th to the 23d day of September she took teaspoonful doses of sulphate of magnesia every three hours, when the headaches, cramps and nausea were relieved and the albumen disappeared; specific gravity 1020; daily quantity four pints. September 24th she was delivered of a healthy living child, the labor uncomplicated. The kidneys, after recovery, were restored to their normal functions.

Of the third case I knew nothing prior to a few days preceding her confinement, but judging by the history given, the albuminuria had been of short and rapid progress; the examination made for urea showed it moderately reduced in quantity.

Case 3.—Mrs. B. E. P——, aged 23, white, primipara; expected confinement about October 18th, 1895. I first saw her October 11th, when she had complained for a few days of vertigo, fulness in the head, nausea, constipation, slight œdema of limbs. Pulse hard, tense and frequent; urine reduced to about twelve ounces per day, with a specific gravity of 1022; albumen present in proportion of about sixty per cent.; no microscopical examination made; urea decreased. She was immediately given ten grains each of calomel and soda, and five drops of croton oil, to be followed by two drachms of magnesia sulphate and one drachm of potassium bitartrate every four hours, to keep up a continuous watery catharsis; absolute rest in bed, hot baths, and a skimmed milk diet ordered.

In forty-eight hours the daily quantity of urine increased to a pint and a half, and the albumen was slightly diminished; in four days the latter fell to about twenty-five per cent. and in ten days to ten per cent., with a continued increase of the daily quantity of urine. This treatment was continued until the 25th day of October when she was confined. Unfortunately I was unable to be in attendance, but was informed by the accoucheur that the labor was slow and safe; in the early stages frequent twitchings of the face and arms. Except for a continued hypercatharsis the puerperium was uncomplicated and her kidneys soon recovered their normal action.

Herman, of London, describes two forms of toxemia of pregnancy, acute and chronic. In the "chronic" form the progress is gradual; it attacks by preference multipara; the premonitory symptoms last for weeks; the urine is normal or increased in quantity, the albumen may be in excess but not out of proportion to the urine, while the urea is diminished to some extent; usually the fœtus dies, and delivery is followed by temporary increase of urine and urea; if the urea is not increased the affection may pass into chronic Bright's disease. My first case resembles this form. The other form is very acute, premonitory symptoms either being absent or of very short duration; it attacks most usually primigravida; the urine is diminished, deficient in urea, contains a large amount of albumen; convulsions are apt to occur rapidly; it often causes the death of the child; if the urine and urea increase rapidly after delivery, these cases are favorable, but if the urea is not restored they are quickly fatal. My last two cases correspond to this form of the disease.

My next case was one of genuine acute nephritis occurring in the latter months of gestation, and complicated with eclampsia.

Case 4.—Mrs. R. S——, aged 27, white, multipara; previous pregnancies and labors uncomplicated; date of expected confinement December 25th, 1892. I was called November 25th and found her near the end of the eighth month of gestation, and suffering with defective vision, headache, dyspnœa, nausea, severe œdema of the face and lower ex-

tremities, and prolabia; she ascribed her condition to a severe cold contracted three weeks previously. Examination of the urine disclosed a specific gravity of 1023, of dark smoky appearance; albumen abundant; hyaline and granular casts and blood-corpuscles under the microscope; urea diminished; only fifteen ounces of urine during twenty-four hours. The symptoms were so marked I seriously considered the propriety of artificial induction of labor, but decided to first try a free mercurial purge, followed by magnesia sulphate and potassium bitartrate twice daily, and diuretic doses of digitalis infusion every four hours, along with a milk diet. December 10th she was so much relieved that I discontinued visiting her, having gained a promise she would persist in the treatment until confined.

December 25th I found her condition as bad as ever; she had failed to carry out the treatment. The urine contained albumen and casts, was deficient in urea, and diminished in quantity. The mercurial purge was repeated, and frequently repeated salines ordered. I did not care to risk pushing the kidneys at this stage of her pregnancy, therefore I did not repeat the diuretics.

December 28th she was delivered of a healthy living child, after a tedious labor complicated with severe vomiting, general muscular twitching, slight mental hallucinations and feeble pains; her nervous condition was such that I had to give her chloral and bromide, and complete the confinement under chloroform. Immediately after delivery she complained of intense headache; respiration irregular and pulse 120 for an hour. Atropine and morphine relieved her headache and the irregular breathing, but within two hours she had a severe convulsion. I at once bled her, and as soon as she could swallow gave calomel and croton oil, also sodium bromide and chloral every two hours; notwithstanding, she had convulsions at regular four-hour intervals for the next thirty-six hours, at which time I put her head in an ice pack, and kept her continuously unconscious for twenty-four hours by morphine hypodermatically administered. She then roused, had no more convulsions, and made a good recovery. Ten days later her urine was absolutely normal.

This case I believe was one of acute parenchymatous nephritis. In the acute toxemias of pregnancy structural lesions of the kidneys are rarely found, and in the three preceding cases, I am satisfied they did not exist. This, however, was a woman whose previous pregnancies were uncomplicated. She was exposed to cold and then symptoms of kidney trouble followed; the urine was diminished, smoky, and contained blood-corpuscles and hyaline and granular casts, while the albumen was true serum-albumen, the form characteristic of genuine renal diseases (the albumen of puerperal toxemia is paraglobulin, and does not respond to the tests for serum-albumen, although it reacts to the ordinary tests of heat and nitric acid).

The next case is interesting from the fact that while the toxemia was acute, according to Herman's term, the labor was not attended by eclampsia, but followed by a persistent coma; and further, there was a recurrence of the albuminuria of a milder type in a succeeding pregnancy.

Case 5.—Mrs. J. L. B——, aged 21, white, primipara; expected confinement July 15th, 1892. Persistent vomiting from an early date after conception continued up to the seventh month. Frequent examination of urine showed nothing abnormal up to May 22d, when I left home for a holiday. June 6th I was surprised to find her suffering with intense headache and excessive vomiting; constipated bowels; extreme œdema of the face, legs, and external genitals; frequent desire to urinate, but passing only half a pint daily; the urine loaded with albumen, deficient in urea, with a few hyaline casts and a specific gravity of 1030. Ordered a cathartic dose of calomel and soda, followed by saline laxatives; potassium acetate and digitalis infusion; milk diet; vapor baths; digitalis poultice to the loins. This was followed by a temporary increase in quantity of urine, lessened specific gravity (1024), diminution of albumen, and some improvement of her other symptoms. June 13th there was a rapid return of all symptoms; and June 19th it was decided to induce premature labor. Eight hours after introducing an elastic bougie into the uterus, premonitory pains came on, and twelve hours later labor was completed under chloroform. The child was born asphyxiated, gasping feebly once or twice.

The mother did well for an hour, slept quietly, but the pulse remained accelerated—120 beats. At the end of the hour, without any hæmorrhage or other apparent reason except exhaustion, she rapidly collapsed and became comatose; pulse almost imperceptible, respiration shallow and sighing; skin cold, blue, and covered with perspiration. Vigorous use of whiskey, nitroglycerin digitalis

and strychnine would revive her, but as soon as they were relaxed she would relapse. This lasted for twelve hours, when she gradually revived; would answer if roused; the pulse and respiration improved. She began vomiting large quantities of dark brown offensive liquid, without having taken anything into the stomach since labor was induced. It was necessary to continue the whiskey, strychnine and digitalis for another twelve hours, for she would weaken without their use. After the first twenty-four hours, beginning with a little crushed ice, champagne, egg-albumen and animal broths, the stomach retained nourishment. This condition lasted in all forty-eight hours. She then gradually revived and after six weeks of illness recovered. The urine, however, contained albumen and diminished urea for quite two months after labor.

Two years later this woman became pregnant again, and when six months advanced, albuminuria, headaches, nausea and œdema commenced. Saline laxative treatment with tonics and a regulated diet were ordered at once and continued for several months. This treatment controlled the disease. On July 4th, 1895, she had an uncomplicated labor and made a rapid recovery. The child, however, weighed only four pounds and required careful attention for several weeks to keep it alive.

Acute Bright's disease and acute toxemia of pregnancy are usually attended by convulsions; if coma is ever present, it follows convulsions. In the above case, I think, I have an unusual history. In the literature I have been able to review, I have not met with any report of coma without convulsions, attending acute puerperal albuminuria, — Lusk, Playfair, E. P. Davis and others do not mention it as a possible complication, though Herman reports two cases of unconsciousness with other nervous symptoms occurring early in the toxemia, that however passed away without interrupting the pregnancy. In this case the coma came on after labor was induced, when one would naturally look for convulsions.

This is one of those cases in which the disorder is apt to pass into chronic Bright's disease, according to Herman; yet, after two months of albumen in urine with diminished urea, following labor, the woman escaped the disease. That she entered her second pregnancy without kidney lesions I am sure, for I made repeated examinations of urine during the two years intervening, and found it always normal.

The next three are cases of chronic Bright's disease complicating pregnancy; two were multiparæ, with histories of preceding miscarriages; the third a primipara, married late in life. All were fatal.

Case 6.—Mrs. S. H——, aged 37, white; history of chronic Bright's disease; three living children; one miscarriage; six and a half months advanced in pregnancy. Her urine on February 9th, 1894, exhibited a specific gravity of 1020; albumen abundant; hyaline tube-casts in small numbers; quantity, three pints in twenty-four hours; has not been free from albumen for several years; severe pain in back, headache, palpitation, vertigo, nausea, swelling of labia, but no œdema of extremities. Had a premature labor eighteen months previously. Advised milk diet, laxatives, diuretic doses of digitalis infusion, warm baths, and hot drinks; and, if no improvement took place, premature delivery, but, if possible, to carry her up to the eighth month of pregnancy. February 10th, at 4 P.M., the patient was extremely prostrated and nervous, with jerking and twitching of extremities, eyebrows and lips; severe headache and darting pains in the spine; slight œdema of extremities and labia majora; nausea, vomiting; convulsions threatened. Endeavored to induce labor by introduction of bougies, but one being insufficient to bring on contractions, after four hours another was introduced, and after six hours more a third. Still contractions did not come on until four o'clock the next afternoon, and then were very weak and feeble. At 6 A.M., February 12th, the os uteri dilated to the size of a dollar, and there was profuse hæmorrhage. Examination revealed placenta previa. A tampon was introduced to arrest bleeding, but there was still considerable oozing, though not enough to be alarming. At twelve o'clock the patient was chloroformed, and delivered by podalic version of a six and a half months dead fœtus. Reaction took place promptly, and for two hours the patient apparently did well; then the pulse became very weak, the mind confused, and there was nervous twitching. Strychnine, digitalis and whiskey were used hypodermatically to no good purpose; delirium set in, followed by coma, and then the convulsions. She died at 6 P.M., having had three convulsions previous to death.

Puerperal convulsions are rare in women suffering with chronic nephritis, according to

Lusk, Playfair, Barker, Herman, and Sir John Williams, the disease predisposing to the other complications, abortion and uræmic coma being most frequent.

The above case is one of the rare class, the patient having a history of chronic Bright's disease of several years' standing, a previous miscarriage dependent upon albuminuria, uræmic toxemia in the last pregnancy requiring artificial abortion, and convulsions ending in death after the third seizure. I cannot conceive of a more hazardous series of complications, nor a more fatal combination of dangers than was present in this case.

Case 7.—Mrs. G. H. T——, aged 35, white, suffering with chronic aortic valvular disease and chronic Bright's disease; had a history of two miscarriages with convulsions at the seventh month (one a twin pregnancy); date of expected confinement, April 15th, 1894. January 1st of that year she had swollen feet, headache, difficult breathing, lips blue, and a high degree of anæmia; urine increased to six pints daily, with specific gravity of 1010; traces of albumen and hyaline casts. Under tonics, digitalis, calomel and squills, and a thoroughly nutritious diet, the quantity of urine was reduced to three pints per day, but the albumen and casts persisted; her general condition also improved and she could breathe with comfort.

February 26th she miscarried at six and a half months, the child being small; it died six hours after birth; labor was rapid and uncomplicated. Three hours after confinement the urine rapidly increased in quantity (about six pints in six hours); the specific gravity was 1004; albumen and casts present; pulse intermittent and respiration irregular. When the child died she became violently excited, and it was thought that she would die; breathing and pulse became so bad, and the face so blue she had to be propped up in bed and the windows opened. Hypodermatics of strychnine and digitalis were administered, and when these controlled her breathing, morphine (hypodermatically) was required to control the nervousness.

She did well for three days, then became restless and could not sleep; morphine caused wakefulness. There was no fever or local symptoms due to puerperal state. The quantity of urine now rapidly decreased and diuretics had no effect. On the third and fourth days she became extremely drowsy. The skin was dry, tongue dry, pulse irregular and intermittent, respiration stertorous. The drowsiness deepened into stupor, then into coma. On the 7th of March, at 6 A.M., pilocarpine muriate was given hypodermatically, which revived her for a few moments, but she sank back into coma, and died at 3 P.M., nine days after the miscarriage.

Examination of albumen revealed the serum-albumen of true kidney lesion. Without fully knowing the previous history of this case, I believe that she had no structural lesion prior to the first miscarriage, and possibly not prior to the second, for both were attended by convulsions which are very rare. If this is true, the chronic nephritis in the last pregnancy was the result of the repeated puerperal toxemia. This woman had, however, an organic heart disease which raised arterial tension, predisposing to renal insufficiency and consequent structural change late in life. In uncomplicated puerperal toxemia, restoration of function after labor is usually easily established; not so, however, when complicated with organic heart disease, and the delayed return of urea to the urine will give rise to chronic nephritis. In this last confinement, the kidneys had reached the point where they could not be relieved, hence the fatal coma of a now chronic Bright's kidney.

Case 8.—Mrs. J. D. H——, aged 36, white, primipara; six and a half months advanced; suffered with chronic Bright's disease. I was called to see her August 17th, 1895, and found her flowing profusely, the bed saturated with blood and the floor under it stained; also suffering pains resembling the first stage of labor; and intense pain in the left hypochondriac and upper lumbar regions, continuous in character. The os uteri was opened to about the size of a dime; temperature 98°; pulse 120, weak and gaseous; face, hands and feet œdematous; skin slightly jaundiced and waxy, a condition that had persisted for weeks; also, learned she had suffered for some time with pain in the back of head and neck, and with difficulty in breathing; the urine, too, had been deficient in quantity. I at once gave her one-fourth grain of morphine and one one-hundred-and-twentieth grain of atropine, hypodermatically, then tamponed the vagina. She had lost too much blood to attempt to bring on labor, which I saw would be inevitably necessary later on. Albumen abundantly present in urine; and later microscopical examination revealed casts and some bile pigment. Calomel and soda were administered, to be fol-

lowed by a saline, and digitalis infusion; acetate of potash continued—the latter had already been prescribed by another physician without seeing the case; morphine to be given if the pains returned.

At 5 o'clock the next morning she complained of slight chilly sensations and fever, with return of pain in the left side; no hæmorrhage; other symptoms unchanged; temperature 102°; pulse 120; had felt no fœtal movements; passed a very small quantity of urine, about three ounces. Morphine and atropine were again given hypodermatically, the tampon removed, and an antiseptic douche used; the os was still dilated. It was decided a miscarriage should be induced, and accordingly an elastic bougie was introduced into uterus at 5 P.M. At 7 A.M., August 19th, labor began, only a slight amount of blood appearing. Three hours later, the cervix being sufficiently dilated, she was delivered with forceps; the child had been dead thirty-six hours or more. Before the placenta could be delivered it was necessary to turn out a large blood-clot. Evidently separation of the placenta had caused the hæmorrhage. She was now given a douche, made comfortable in bed, and slept well for three hours; then her bowels began to move copiously, and within three hours she had ten watery actions; also nausea and vomiting; pain and great tenderness in the left hypochondriac region, but no pain or tenderness in the pelvis; no odor to the discharge; abdomen was distended with gas; temperature 102.6°; pulse 110; respiration 26. One-fourth grain of morphine was given every three hours hypodermatically; quinine by the mouth every six hours; antiseptic douches every six hours; hot applications to the abdomen.

The nurse's notes the next morning indicated no change, except that the bowels had moved eighteen times and were uncontrollable. Urine had been passed once voluntarily, with a specific gravity of 1010, and contained albumen. The same line of treatment was continued, strychnine, one-sixtieth grain hypodermatically, every three hours being added.

She continued to grow progressively worse each day; bowels uncontrollable; tympanites enormously increased; pain in the left side unceasing; mental stupor deepening; picking at the bed clothes and muscular twitching constantly present; pulse 120 to 150, irregular and compressible; respiration 30 to 40, irregular and stertorous; temperature 103° to 106°; but the lochia remained clear and odorless, nor was there at any time pain or other pelvic symptoms. August 24th, at 6:30 P.M., five days after delivery, she died.

Sir John Williams, in *The Practitioner* for January, 1895, reports two cases, which resembled the foregoing except that his occurred in acute toxemia, attended by eclampsia; both exhibited evidence of alterations of the liver and spleen, traceable to defective excretion of all the emunctories. In my case the liver as well as the kidneys was at fault, and the symptoms were due to the uræmia of chronic Bright's disease, *plus* the acute toxemia of pregnancy. The chilly sensations and fever, taken with the pain in the side and tympany, which would suggest general puerperal peritonitis, I must claim as a symptom of uræmia. Fever is frequently present in uræmia; I have seen it in uncomplicated Bright's disease during the uræmic stage, and it was present in my next case of albuminuria of pregnancy. Stengel, of the University of Pennsylvania, writing upon "Fever in the Course of Bright's Disease and in Uræmia,"* describes this form of pyrexia, and gives three distinct groups of cases in which acute or chronic nephritis and elevation of temperature are associated. The *first* includes cases of mild febrile reaction at the beginning of acute nephritis; *second*, elevation of temperature resulting from complicating diseases; *third*, the temperature is elevated in the course of the uræmic state. My case might be considered as belonging to the second group, if placental separation and retained clot before delivery are sufficient complications to raise temperature; but if this was true, delivery and cleaning out the uterus should have reduced temperature. I think, however, it was entirely uræmic and belongs to the third group.

This uræmic fever Stengel says may be insidious, a slow infectious manifestation of symptoms like the typhoid state; or, again, it may manifest itself suddenly and violently, being eclamptic in character. The case I have just given was insidious and gradually increased, the fever rising with the advance of the symptoms.

In considering the ætiology of uræmic fever, Hughes and Carter, in an article on "The Clinical and Experimental Study of Uræmia,"† claim that high temperature is an

**American Journal of the Medical Sciences*, November, 1895.

†*American Journal of the Medical Sciences*, August and September, 1894.

integral part of the toxemia, as it occurs in the presence of other symptoms unquestionably uræmic; that it may abate with subsidence of the toxemia, and is the result of no demonstrable lesion; the uræmia being due to a poison acting upon the central nervous system, may disturb the heat centres. This being true of other forms of uræmia, it should also be true of puerperal toxemia.

I regret my inability to secure autopsies in these three fatal cases, for I am sure much could be learned regarding combined chronic Bright's disease and pregnancy, by such examinations.

In the next case the toxemia did not manifest itself until four days after delivery, while the uræmic fever was sudden and severe.

Case 9.—Mrs. J. B——, aged 24, white, primipara; had escaped the usual complications of pregnancy, including albuminuria—the last examination of her urine, five days before labor, showing it to be free from albumen. January 24th, 1896, she was taken in labor at 10 A.M., and at 6 P.M. delivered of a living child with forceps; progress was slow, pains weak, and her strength exhausted by repeated attacks of vomiting. Up to the morning of the 28th she did well, when chills and fever supervened with a temperature of 103°; pulse 120; excited breathing and cardiac pains; no pelvic tenderness, localized pain, abdominal tympany, or abnormal lochia. Quinine, morphine, etc., were given every four hours until the fever was reduced. The next morning she had intense dyspnœa and pain in the cardiac region, without any sign of disease of the heart; nausea and vomiting; swollen, colorless face and anxious expression; pulse 140, irregular, tumultuous, and very weak; temperature 99°; very little urine passed. Morphine and nitroglycerin gave temporary relief, and the day passed quite comfortably until 7 P.M., when the symptoms reappeared.

On the 30th her condition was alarming: Temperature 97.2°; pulse almost imperceptible; respiration excited; cardiac pain and dyspnœa intense and constant; headache severe, but mental powers undisturbed; skin blanched and covered with a cold sweat, as though she had had a severe hæmorrhage; vomiting persistent, milk or simple ice-water being rejected; no pelvic or abdominal symptoms; bowels acted freely, but the urine was still diminished in quantity. She was given strychnine and nitroglycerin every two hours; champagne in tablespoonful doses every hour; morphine hypodermatically as needed; and hot water bottles kept in bed with her. Her condition remained the same for the next two days.

The diminished quantity of urine suggested the propriety of an examination of that secretion, and it was found to contain a considerable amount of albumen and a few epithelial casts; this was quite a surprise, owing to the absence of all albumen for five days preceding confinement, the practically normal labor, and the good general condition immediately succeeding. She was given fifteen grains of calomel to be followed by a brisk saline if her stomach could bear it, then infusion digitalis, the strychnine and nitroglycerin to be continued. As soon as the mercurial had acted her stomach became quiet, the other symptoms improved, and the quantity of urine rapidly increased while the albumen diminished. A few days later she was given Basham's mixture, and made a complete recovery; urine normal six weeks later.

Owing to the good general condition preceding labor, and lack of albumen in urine, I did not suspect the possibility of urea being decreased. I now believe it was diminished before confinement, and that toxemia was the cause of the feeble pains, vomiting and slow labor, Nature failing to restore the urea. After delivery, albumen developed, and she was saturated with the poison, causing the uræmic fever and other symptoms. The chill and fever took the place of eclampsia, the case coming under the eclamptic form according to Stengel. There is a form of fever following eclampsia due to the violent muscular action of the convulsion, but this should not be confused with the sudden uræmic fever of Stengel; in the latter, if convulsions occur, the temperature is elevated before the fits come on. In the cases just given the fever gradually subsided and gave place to subnormal temperature, the usual manifestation of uræmic poisoning.

The maternal mortality of this complication is usually placed at twenty-five to thirty-two per cent.; in my record there were three deaths in ten cases of toxemia, all in cases having histories of chronic nephritis. From thirty-six to fifty per cent. of the children are born dead, or die soon after birth; but six of the children in my records lived, two were born dead, and two died soon after birth. The usual causes of death are asphyxia, placental separation, and poisoning

from the absorption of the toxemia in utero; if the toxemia has existed in the mother for some length of time, the child is apt to be frail and badly developed.

Since every pregnant woman is exposed to toxemia, which usually announces its presence by albumen in the urine, with other waste products—generally by decrease of urea,—the first step in treatment is, frequent and careful examination of urine. If albuminuria is present or urea diminished, the woman is toxemic, and exposed to abortion, premature labor, eclampsia, coma, chronic Bright's disease or other grave consequences, and the life of the child is in danger. The cardinal indications are, to promote elimination of the toxic materials circulating in the blood, and restore the excretory organs to their normal functions. If, however, the poison is excessive, and the life of the mother as well as the fœtus at stake, then the indication is to promptly empty the uterus.

Early in pregnancy, before the fœtus is viable, the attempt should be made to restore the excretory functions without interfering with gestation, provided the mother's life is not exposed; after the child is viable, the endeavor should be to promote elimination of waste materials, stimulate healthy kidney action, and prolong the pregnancy; if, however, the mother's condition is alarming, labor must be induced. Near the end of gestation, or if normal labor is near at hand and the toxemia intense, premature labor should be induced. During labor, if the poisoning is severe or eclampsia present, delivery should be hastened. In post-partum toxemia and eclampsia, there is no obstetric interference indicated, but prompt elimination should be instituted, while treatment to allay the severity of the symptoms is employed.

Elimination of the waste materials and restoration of normal functions is obtained by diet, rest, bathing, diluent drinks, and the use of remedies to promote the rapid action of the excretory organs—the kidneys, liver, intestines, skin and lungs.

Milk is pre-eminently the diet for all forms of kidney disease, and in this complication it yields the best results; but if it cannot be tolerated or disagrees, a more liberal diet should be given, such as the white meats of fowls, fish, oysters, fresh fruits and good nutritious bread. Absolute rest in bed will be of benefit, provided an abundance of good pure air can be had. Like some forms of cyclic albuminuria, rest in bed relieves the urine of its albumen. Warm baths, hot air baths, or the hot pack will aid the skin to eliminate the poison, and the drinking of hot water while bathing will increase the perspiration. If, however, a pyrexia is present or a rise of temperature be induced thereby, the bath should be abandoned, for it may react by stopping the excretion. Light flannels should be worn always. Pure water, or carbonated waters, may be taken with moderation; if excessively ingested, any water will often seriously embarrass the kidneys by a sudden increase of the fluids to be excreted. Coffee is good; tea acts as an astringent on the kidneys.

As to remedies to promote elimination by the kidneys, I am inclined to think that it is better practice to avoid urging these organs to excessive action. Davis (of Philadelphia) cautions against the use of the potassium salts because of their irritant properties, and I believe this is true of most diuretics—digitalis, caffeine, etc.,—in the presence of a high degree of toxemia. If this class of drugs is given at all, it should be after elimination by other excretory organs has been thoroughly established; even then the restoration of functions, usually attributed to their use, is really the result of the relief to the circulation obtained by other eliminative measures. The liver being largely responsible for the causation of this condition, calomel should be resorted to early; free purgation is in the line of rapid elimination; but salivation is easily produced in Bright's disease, and watchfulness must be observed when calomel is given in this complication; in Case 8 slight ptyalism occurred. A saline cathartic should follow the calomel. Intestinal elimination is of immense value in uræmia. If the condition is urgent, hypercatharsis should not be feared if the patient is able to bear it. The purgative salts of magnesia and soda are to be preferred to vegetable cathartics, though colocynth and elaterium are good, and at times croton oil. Pilocarpine is sometimes found of advantage, but it is in the main too depressing and liable to cause pulmonary œdema. Pulmonary elimi-

nation can be obtained by the ammonia salts.

Caution should be observed in the eliminative treatment of this complication, that depression should not take place; and stimulants should be exhibited when needed, strychnine, nitroglycerin and the alcoholics being the best on this line.

All nervous excitement should be controlled by sedatives and narcotics, though not to the extent of interfering with eliminative measures. Simple elimination is itself, at times, a remarkable sedative. Cases will come up, however, in which excitement must be controlled, when bromides, chloral, chloroform, or morphine are demanded. I have seen morphine in two or three cases act with most charming effect, and I do not share in the dread of this drug in puerperal toxemia.

If elimination of the waste products has failed to restore the functions of the excretory organs, and the condition is urgent, eclampsia being imminent or other complications alarming, the uterus should then be emptied; either natural contractions may be brought about by the use of elastic bougies and labor allowed to terminate unaided, or rapid dilatation employed and prompt delivery effected with forceps or by version. Every antiseptic precaution must be observed when mechanical interference is demanded, and an anæsthetic should be used in rapid delivery. The nervous system should be well guarded against shock and sustained against depression.

The treatment of the case after obstetric interference, and in cases of toxemia arising after natural delivery, should be conducted on the same lines above indicated—promotion of elimination of waste materials, healthy functions restored, and supporting and sedative management.

Macon, Georgia.

THE REMEDY WORSE THAN THE DISEASE.

The *Texas Medical News* is responsible for a statement that a physician of the Lone Star State, "who has the good of mankind at heart," has discovered iodoform dusted about the face and over the extremities will effectually keep away mosquitoes.

Give us the "skeeter!"

THE MEDICAL AGE.

A SEMI-MONTHLY REVIEW OF MEDICINE.

—PUBLISHED BY—

GEO. S. DAVIS, Medical Publisher, Box 470.

All communications regarding papers, reports, etc., should be addressed to the Editor of the MEDICAL AGE, P. O. Box 470, Detroit, Mich.

Matters relating to advertising space, etc., to be addressed to the publisher, Geo. S. Davis, Box 470, Detroit, Mich.

The editor cannot engage to return rejected manuscripts or to correspond with the writers thereof, unless such are accompanied by sufficient postage.

DETROIT, MICH., JANUARY 25th, 1897.

Editorial.

HYDROPHOBIA.

Periodically cases of this much-mooted disease are reported in the lay and medical press.

Three cases are reported from Paris, Ontario, which were sent to a so-called Pasteur Institute, and yet the evidence that any such malady existed, either in the offending animal or in those bitten, is not worthy of a moment's consideration. The spinal cord of the dog was utilized for making subdural inoculation on a rabbit, and the results accruing to the operation were only those which would accrue to any subdural inoculation. Why men will persist in using this method—unless as a means of securing advertising—knowing how utterly fallacious it is, and how often that fallacy has been effectively proved, is beyond comprehension.

From our English exchanges we glean the fact that in November last a lad of fourteen was bitten by a dog which also was "proved," by the method just enunciated, to be "mad." Three days after he was wounded he arrived in Paris, and after three weeks' treatment in the Pasteur Institute returned home cured. Shortly after his return, we are informed, "he manifested symptoms of hydrophobia, and medical aid proved of no avail. It took four persons to hold him, and morphine and chloroform in enormous doses were required to be administered." He died "from hydrophobia" on the third day thereafter "in terrible agony."

It seems as if the majority of the medical profession will take no heed of the lessons taught by the so-called cases of hydrophobia.

They do not seem to realize that the exploitation of cures, etc., multiplies the number of cases; neither do they seem to be aware of the notorious fact that hydrophobia or rabies, as laid down by Mayhew, Youatt, Blaine, and the older authorities, presents no *simile* to what is denominated rabies in these days; or of the further fact that there are no means whereby rabies can be definitely differentiated, and that its principal symptom is, to quote well known authority, "merely a change in the characteristics of the animal," which may be the result of any one of scores upon scores of common every-day maladies.

REGENERATION OF LENS.

This is a physiological operation which has been generally held as impossible in any form of life. Some two years ago physiologists were astounded by a communication emanating from Gustav Wolff (in the *Biologisches Centralblatt*) which flatly contradicted the chief teachings of Weismann so generally accepted. Herein Wolff declared that the destruction of an organ formed from the ectodermic layer is followed by regeneration of the structure from a layer of cells of mesodermal origin. A subsequent paper devoted to the same subject, more emphatically claimed that the lens of the eye of *Triton tæniatus*, when destroyed, would be reproduced by a lens that developed from the iris: this, which brought down upon the author's head a flood of adverse criticism, has recently been corroborated and placed beyond doubt by Erick Müller, who at first refused to accept Wolff's conclusions and consequently entered upon the examination with great skepticism. The larvæ chosen varied from three to six centimeters in length. The cornea was carefully slit with a scalpel and the lens removed without injuring the iris. Within one day changes were noted in the layer of cells composing the latter—the inner layer began to take on the appearance of embryonic cells. The cells began to lose their pigment, which was taken up and carried off by the leucocytes that speedily filled the pupillar space. The cells then began to increase in size and by the tenth day a small group, recognizable as a swelling (Fig. 1), had been pushed into the pupillar space. From this time on the group of cells underwent all the changes recognizable in the normal developing lens; the posterior lens became much thicker than the anterior, its cells more or less columnar, and finally arranged themselves in concentric lay-

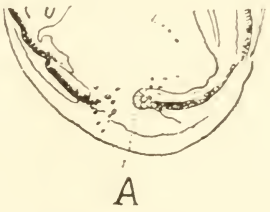


FIG. 1. Ten days after destruction of lens; showing new lens, A, regenerating from iris.

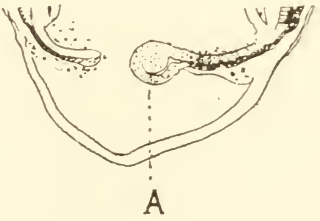


FIG. 2. Thirteen days after destruction of lens; A, the new lens.

ers covered by the one-celled layer (Fig. 2). By the fortieth day after the operation the inner cells forming the inner three-fifths of the lens had lost their nuclei and become transparent. At the end of two months the regenerated lens had every appearance of a normal one.

Verily the recuperative power of Nature is beyond human ken.

MEDICAL SPELLING.

The *Maryland Medical Journal* so thoroughly voices our opinion of this subject that we reproduce the major portion thereof:

"The absence of any uniformly recognized authority on orthography in the United States has caused a wide diversity in the spelling of certain words and the almost too ready coinage of new words without sufficient sanction as to form and construction.

"If some body of learned men could act as god-father to all new terms and words, settling once for all the correct spelling and definition, then the multiplication of diction-

aries with the varied orthography would be avoided. The best medical dictionary in English is marred by spelling which robs so many words of their philological originality. The history of a nation may be traced through its language, and while changes in the forms of words must of necessity take place, such changes are usually gradual.

"Some publishing houses, notably the Appletons, adhere closely to British orthography, and it must be confessed this is much preferable to that employed in some of the medical journals. Even the final 'our' in such words as 'colour' is refreshing after reading in one of the newer journals of a 'clinic lecture.'

"Would-be philologists should remember that the language of a nation is sacred and, except perhaps in dialect stories, should be respected."

GESTATION OF CRETIN FŒTUS.

Doctor H. H. Vinke, of St. Charles, Missouri, in a personal letter to the editor of the MEDICAL AGE, calls attention to the possibility that *in utero* cretins require a longer time than normal children to arrive at a viable age. He adds:

> I have never seen a reference to this matter in the literature on the subject to which I have had access. A few months ago I received a communication from a lady apparently most intelligent, who is the mother of a cretin aged twelve years, and she is absolutely certain that in her case gestation was considerably prolonged.
>
> It is possible that congenital cretinism is not so rare as it is thought to be, and that gestation in these cases is alone prolonged.

Here is a question worthy of investigation, and the MEDICAL AGE would like to secure further evidence from all possible sources.

EDITORIAL NOTES.

"And Art Thou There?"—

Under this title one of our homœopathic exchanges compliments the *Therapeutic Gazette* for declaring that "the effects of drugs in minute doses are the opposite to what they are in large doses—thus small doses of ipecac will control vomiting and small doses of pilocarpine will relieve excessive sweating." Our *confrère* further adds: "this is sound but crude homœopathy; it is what the men who clearly see the great therapeutic law that should guide in the administration of all drugs for curative purposes have been fighting for during the greater part of the century."

This is the first time that we have ever supposed that the dual action of remedies was a homœopathic discovery. Unless we are very much mistaken it will be found this same law was enunciated by the regular profession long before Hahnemann was ever heard of. It appears also in the Encyclopedia Brittanica Scotticus, edition of 1797, and is not there mentioned as being "new," but as something that has been recognized since the day of Hippocrates.

There is sometimes a decided disadvantage in discovering too much.

Dangers of the Cigarette Habit.—

Doctor William Murrell, the well known London therapeutist, declares he has repeatedly observed chronic arsenical poisoning in those who were inveterate cigarette smokers, and in consequence was induced to undertake an examination of cigarette wrappers. Out of the seventeen brands examined six contained arsenic "in large and readily demonstrable quantities."

Commenting on the foregoing, the *Medical Times* says "there is a popular belief that green papers are more likely to contain arsenic than papers of other colors, but this is not the case. One well known American firm, which puts up its cigarettes in wrappers of a vivid green color, evidently exercises care in this matter, for not a trace of arsenic was found; on the other hand, a tobacco put up in bright green wrappers gave abundant indications of arsenic in the paper. Blue and buff wrappers are, as a rule, dangerous and should be avoided."

The Mammoth in Alaska.—

The newspaper press is again publishing reports of the existence of the Mammoth in the interior of Alaska, and inasmuch as skeletons thereof are abundant in that region in the latest deposits, there is no *a priori* impossibility in the supposition that some herds of this gigantic mammal still survive. The

American Naturalist, however, regards the claim with suspicion, and points out that the sole source of these tales is the reports of aborigines, who, according to all accounts, are not noted for veracity, and who like to be entertaining. The huge bones have not escaped their observation, and may have given rise to the stories that they tell. The matter is, however, worth looking into by persons who have opportunities for doing so on the spot.

Inoperable Cancer.—

Doctor Snow, of the London Cancer Hospital, declares that morphine, if associated with cocaine and given in large doses for a long time, will exercise a remedial or at least favorable action upon carcinomas, and tends to retard recurrence.

However true this may be—and we may be permitted to express very grave doubts as to the justice of the observations—the remedy is apt in many instances to prove more objectionable than the malady itself. Those unfortunate individuals who have become addicted to both morphine and cocaine, speedily develop forms of insanity utterly uncontrollable and far beyond anything known to morphine alone. We therefore warn our readers not to place too much reliance upon this statement.

Infection of Cancer.—

Recently was communicated to the Paris Academy of Medicine two cases, both physicians, in which the infection of cancer appeared to be beyond question. In one the starting point was an acne pustule, presumably infected by a habit of scratching the face, the victim at the time having several women affected with uterine cancer under his care, and he, moreover, somewhat negligent in the matter of asepsis. The second was a papilloma under the nail, which apparently resulted from an operation for epithelioma of the face; the physician's index finger was in the patient's mouth, when the nail was suddenly turned violently back with the result as named.

Dangers of Guaiacol.—

This medicament has been very widely heralded as "harmless" under any and all conditions. With this belief it has been prescribed largely and for the most ordinary everyday affections, as well as those of more serious character. The *Medical Press and Circular*, however, recently called attention to the fact this drug is decidedly poisonous; also in one of our cis-Atlantic exchanges is reported the case of a physician who applied two minims of pure guaiacol to the cavity of a necrosed tooth for the relief of odontalgia, plugging with cotton pledget and sealing with gum mastic. Within twenty minutes after this operation poisonous effects were observed, and the immediate removal of the medicament alone prevented serious results.

Rheumatism.—

Our French exchanges are at the present time lauding the use of methyl salicylate (synthetic oil of wintergreen) as a local application in subacute and chronic rheumatism, further insisting that the same acts fully as well as the salicylates given by the mouth.

This treatment is neither new or novel, and was very thoroughly exploited in THE MEDICAL AGE several years since. It has long been well known that *true* oil of wintergreen administered internally is often beneficial in rheumatic affections, and that this oil or its synthetic substitute is valuable when applied to painful joints.

How Hydrophobia is Diagnosed.—

We find the following in the report of the proceedings of a North of Ireland Board of Guardians: The Board's Inspector under the Contagious Diseases (Animals) Act wrote stating that it had been reported to him by the Constabulary that a boy had been bitten by a stray dog supposed to be rabid. He at once drove to the place in question, but *could find no trace of the dog, but from what he had learned of its movements he was pretty well convinced that the dog was rabid.—Medical Press and Circular.*

Soap as a Lubricant.—

A correspondent of the Philadelphia Polyclinic asserts, as a lubricant for gynæcological examinations, etc., liquid soap is preferable to any oily substance.

This we most heartily corroborate, and will further add that for twenty-five years, when

desiring a lubricant for gynæcological purposes, the writer employed a watery solution of Castile soap whenever available. The new ethereal antiseptic soap of Johnston also answers a most excellent purpose, and when it comes to cleaning hands, instruments, or the vaginal vault, is unexcelled.

Creosote in Gonorrhœa.—

The *Meditzinshoie Obozrenie* reports fifty-eight cases of gonorrhœa in the male, successfully treated with injections of emulsion of creosote, two to ten per thousand. It is added that "the discharge quickly decreased, became mucoid and then ceased altogether;" also that the patients recovered more rapidly than under ordinary methods and without complications or relapses.

It is claimed that creosote exercises an anæsthetic action on urethral mucous membrane.

Hypodermatic Purgatives.—

The *Journal de Médecine de Paris* is responsible for the statement that an aqueous solution of caffeine and chloral, equal parts (one each to ten of water), when employed hypodermatically in doses of fifteen minims, is an efficient purgative.

We would very much like to know what physiological action is assumed to take place in such case. Reasoning physiologically and analogically, a hypodermatic purgative is practically impossible.

Announcement.—

At an early date we will publish a somewhat extended article by Stuart Jenkins, under the title of "The Origin of the Vertebrates," which is well worthy of the consideration of every physiologist and scientist. An entirely new and novel view is presented, and furthermore it carries with it a strong element of possibility as well as probability, and if correct will place the whole scheme of "creation," so-called, in an entirely new light.

The Progress of Medicine.—

" Hepatic Doctors now are seen no more,
The hunt for bile has long been given o'er;
Whoever would a reputation make
Deserts the bile—the bugs to overtake."

—*Exchange.*

Items and News.

What's the Matter with English?—

Can't druggists talk United States? If so, why not renounce
Those quite outlandish Latin words that no one can pronounce?
Why not use terms that common folks can somehow figure out,
And not hide everything behind a lot of Latin doubt?

Why say "chloride of sodium" when common salt is meant?
Or take "oxide of hydrogen" when it is our intent
To drink just good plain water? And would any one, alas!
Take "protoxide of nitrogen" instead of laughing gas?

'Tis sad to have to swallow drugs of any kind of form,
But these dread names they give them fill our being with alarm;
At "sulphate of magnesia" the startled patient halts,
When all he really wishes is a dose of common salts.

On the "menu" (a bill of fare) more foreign mush we note;
Charged by the piece it's "a la carte;" the thing's "table d'hôte."
"Roast beef au jus" we learn, when we the strange "au jus" explore,
Means "gravy that goes with it"—only this and nothing more.

"Puree green pea au crouton," by those who know, is said
To mean what simple, common folks would call pea soup and bread.
So, day by day, our timid souls with awful fears beset,
We drift on through the wide, wide world, not knowing what we've "et."

NIXON WATERMAN.

Size of a Spider's Thread.—

Leeuwenhoek, the first microscopist, wrote in 1685 as follows: "I have often compared the size of the thread spun by full-grown spiders with a hair of my beard. I placed the thickest part of the hair before the microscope, and, from the most accurate judgment I could form, more than a hundred of such threads placed side by side could not equal the diameter of one such hair. If, then, we suppose such a hair to be of a round form, it follows that 10,000 threads spun by the full-grown spider, when taken together will not be equal in substance to the size of a single hair. To this, if we add that 400 young spiders, at the time when they begin to spin their webs, are not larger than one full-grown one, and that each of these minute spiders possesses the same organs as the larger ones, it follows that the exceeding small threads

spun by these little creatures must be still 400 times slenderer; and, consequently, that 4,000,000 of these minute spiders' threads cannot equal in substance the size of a single hair."—*Microscope.*

To Stop the Crying of Babies.—

It has remained for the very new women who are in charge of a well known New York nursery to discover that an infant's screams are wholly superfluous in a well regulated home. As soon as a child begins to cry the nurse catches it up, holds it gently, and places her hand over its nose and mouth so that it cannot breathe. The crying ceases directly, and the child is allowed to breathe freely again. Should it a second time attempt to scream, the same simple and effectual method is applied. This is repeated till the baby imagines that the painful stoppage of the breath is caused by its efforts to scream, and so is careful to keep quiet.

The nurses attest that this *régime* works to a charm, that the most well bred quiet is always preserved in the nursery, and that the self-control exhibited by tots of three months old, even when in actual pain and distress, is something remarkable. Roaring will, therefore, be eliminated from the accomplishments of the modern baby.—*Albany Argus.*

Most Amusing.—

A correspondent of *The Lancet*, London, who conducted a small Roentgen-ray gallery at a bazar, relates a number of amusing experiences:

An elderly gentleman of prosperous appearance objected that the show was not "up to date," as he had "read somewhere in a newspaper that now you can see the liver palpitating and the heart circulating."

A young and anxious mother asked to see if her little boy had really swallowed a threepenny bit, as he was uncertain himself. She had read in the papers that a great doctor, Sir Something *Blister*, in a speech in a large meeting in Liverpool, a little while ago, said that a half-penny had been seen in a boy's "sarcophagus!"

A girl of the domestic-servant class asked the curator in confidence to "look through her young man unbeknown to him, while he looked at the picture, to see if he was quite healthy in his internals."—*The Literary Digest.*

Study Nature.—

The student and physician who care to lift themselves from beaten paths, must enter upon a study of nature and its relation to disease; and he who would lead the advance must put his text-books upon the shelves, then study and observe; must be his own tutor and his own examiner; must originate and follow out his theories, and perfect them if possible. He will thus gain knowledge that will assist him immensely.—*New York State Medical Reporter.*

Taught the Teacher.—

In the biography of Doctor Hawtrey, a famous English schoolmaster, there is a description of his unkempt appearance, with a comment which has been greatly quoted. It is said that he was scolding some boy for being late at morning lesson; the boy replied that he had not time to dress. "But I can dress in time," said the doctor. "Yes," replied the boy, "but I wash."—*Lippincott's Magazine.*

An Everyday Tale.—

Mrs. Merony (through the telephone): "Is that you, Doctor?"

Doctor: "Yes; who is it?"

Mrs. Merony: "Mrs. Merony. O, Doctor! what shall I do for the baby? He has swallowed a dime."

Doctor: "Well, you surely don't want to spend two dollars to get a dime, do you?"—*Newman Independent.*

Night Work.—

This is a much exaggerated evil of the physician's life. In the first few years of city practice there is not a superabundance of either day or night calls, and to one who falls asleep full of apprehensions as to the success of the future, the jingle of the telephone breaks in upon his troubled dreams like sweet music.—BENEDICT, in *Lippincott's Magazine.*

Commendable Caution.—

Visiting Clergyman: "I'm very glad to have been of any comfort to your husband, my good woman. But what made you send for me instead of your own minister?"

Good Woman: "Weel, sir, it's typhus my poor man's got, and we dinna think it just reet for our ain meenester to run the risk."

Truly!—

Boston wrestling with Macmonnie's "Bacchante" is a sight to make the world pause and reflect.—*Homœopathic Recorder.*

Most People Do.—

It is folly to expect the stomach to do the work of the teeth.

Book Reviews.

ANOMALIES AND CURIOSITIES OF MEDICINE. By George M. Gould, A.M., M.D., and Walter L. Pyle, A.M., M.D. Cloth; large 8vo; pp. 968. Price, $6.00. W. B. Saunders, Philadelphia.

This is a collection of rare and extraordinary cases of abnormality in all branches of medicine and surgery, abstracted, classified, annotated, etc., from medical literature. It is unique to say the least, and has made a wonderful volume; nevertheless, the omissions in the very lines treated of are likewise remarkable. This is not especially to be wondered at, inasmuch as the amount of medical and scientific literature from which such a work must be drawn is simply inexhaustible. The authors have selected what has seemed to them typical cases; naturally others familiar with the same subjects might decide in a different way; consequently, there will be some disappointment felt among a few readers, but those only who are most familiar with special topics. To the majority of the profession the work will be one of unfeigned interest and wonderment, and the authors must be congratulated upon so successful a production. No one who is interested in the weird, the remarkable, and the abnormal, can afford to be without this volume. The topics the reviewer finds most incomplete are: Hydrophobia, Hermaphroditism, Brain Wounds, Spontaneous Combustion, and Longevity—a criticism based upon personal research and familiarity therewith.

CURIOUS PUNISHMENTS OF BYGONE DAYS. By Alice Morse Earle. Cloth; 12mo; pp. 149. Price, $1.50. Herbert S. Stone & Co., Chicago.

This most interesting little volume presents in popular form the punishments in vogue among our forefathers. It deals with old-time "blue laws" and their penalties, which though not altogether pleasant to contemplate nevertheless are not without a humorous side. The eleven different chapters treat respectively of the bilboes or shackles; the stocks; the pillory; the ducking-stool; the whipping-post; branks (bridles) and gags for scolding women; public penance; military punishments; branding and maiming; punishment of authors and books; scarlet letter; and the wooden horse. The value of the volume is greatly enhanced by twelve pictures by Frank Hazenplug in the style of the last century, which are even more descriptive than the text.

Those who love the quaint and the curious will welcome this most interesting work.

A GUIDE TO THE CLINICAL EXAMINATION OF THE BLOOD FOR DIAGNOSTIC PURPOSES. By Richard Cabot, M.D. Cloth; 8vo; pp. 405. Price, $3.75. William Wood & Co., New York.

While numerous works dealing with this subject have been published abroad, this is the first, we believe, to appear in the English language, and has long been a necessity. The purpose is to bring together such portions of recent researches into the condition of the blood in various maladies as may be of practical utility in diagnosis, prognosis and treatment; and the detailed directions for the carrying out of the various steps of examination are given with such care that even a tyro with a microscope should not make an error; special attention is also paid to differential diagnosis through the microscope. Not only is the condition of the circulation itself described, but also so-called diseases of the blood, acute and chronic infectious diseases, diseases of the nervous system, heart, liver, kidneys, lungs, etc. The value of the book is very much enhanced by very carefully colored illustrations. And withal is given a very extensive bibliography which cannot fail to be of value.

GENERAL PRINCIPLES OF ZOOLOGY. By Richard Hertwig. Cloth; 12mo; pp. 226. Price, $1.50. Henry Holt & Co., New York.

This volume comprises the first or general part of Richard Hertwig's—the well known Professor of Zoology and Comparative Anatomy in the University of Munich—"Lehrbuch der Zoologie," which embodies the results of this author's long and eminently successful experience in teaching. The translation, by Mr. George Field, of Brown University, has been made with the consent and active co-operation of the author, and the masterly treatment of the subject by two such able writers cannot fail to be of service to teacher, student or general reader.

This is really the most complete initiatory text-book of zoology that it has been our lot to peruse, and is free from those abstruse characteristics that are so puzzling to beginners and generally so manifest in works of this class.

Further, the volume is not only a text-book for beginners, but will prove valuable for reference to those far advanced in zoological science.

REPORT OF THE UNITED STATES FISH COMMISSION FOR 1894. Cloth; 8vo; pp. 718. Government Printing Office, Washington.

The notable papers of this volume are the reports of T. H. Bean, Z. L. Tanner, and U. O. Cox respectively, on "The U. S. Commission at the Columbian Exposition," "Operations of the 'Albatross' for 1894," and "Fishes of the Missouri River Basin." U. O. Cox also presents a report upon "The Fishes of Southwest Minnesota." "The White Fishes of North America" is by B. W. Evermann and Hugh M. Smith; J. J. Brice writes of "The Movement and Breeding Grounds of the Fur Seal;" B. W. Evermann and W. C. Kendall afford an annotated catalogue of "The Fishes of Vermont;" and, finally, C. H. Stevenson gives a review of the foreign fishery trade of the United States.

THE MEDICAL ENVIRONMENT. By D. Campbell Black, M.D., F.R.S.E. Paper; 16mo; pp. 56. Price, 2s. 6d. Hugh Hopkins, Glasgow.

This embodies two addresses, one "On the Hospital Question," the other "On Medical Ethics." They deal with facts that are of interest to every intelligent and honorable medical man. While there are some who hold that professional ethics cannot be put in written form, etc., this is a form of cant invariably employed as a means of evading those duties that are essential to the well-being of medical men and professional association with one another. We wish that every practitioner could read these essays, reflect and ponder thereon, and practice the precepts inculcated.

DIE SKROPHULÖSEN ERKRANKUNGEN UND DIE VORZUGE IHRER BEHANDLUNGSWEISE NACH DEN PRINCIPEN UND ERFAHRUNGEN DER HOMÖOPATHIE. By Doctor H. Goullon. Cloth; 12mo; pp. 268. Willmar Schwabe, Leipzig.

As its title indicates, this volume is devoted to the treatment of scrofulous diseases in accordance with homœopathic therapeutics. It discusses in a clear and readable style the general pathology of scrofula and allied dyscrasias, such as tuberculosis, syphilis, sycosis and rachitis; the special forms of scrofula, and the most approved homœopathic remedies.

REPORT OF THE UNITED STATES FISH COMMISSION FOR 1893. Part 19. Cloth; 8vo; pp. 484. Government Printing Office, Washington.

This is an exceedingly interesting volume, among the papers embodied of special interest being "Fisheries of the Pacific Coast," by William A. Wilcox; "Work of the U. S. Fish Commission Steamer 'Albatross'," by Z. L. Tanner; "United States Ichthyological Investigation in Western Minnesota and Eastern North Dakota," by Albert J. Woolman; "The Food of the Oyster, Clam and Ribbed Mussel," by John P. Lotsey.

UEBER SPAT FORMEN VON ANGEBORENER SYPHILIS. By Doctor H. Donner. Cloth; 8vo; pp. 186. Willmar Schwabe, Leipzig.

This monograph is particularly interesting, and though the author is a well known homœopathic physician of Stuttgart, his knowledge and experience is such that the volume will prove of interest to every practitioner regardless of school. Inasmuch as a large portion of the work is taken up with typical cases a critical review is practically impossible.

AN AMERICAN NOBLEMAN. By William Armstrong. Cloth; 12mo; pp. 277. Price, $1.25. Rand, McNally & Co., Chicago and New York.

This is a story of "Canaan Wilderness" of the West Virginia mountains, told largely in dialect. It is to a considerable extent made up of character studies and has to do with mountaineers, lumbermen, moonshiners, revenue officials, etc. It is a most interesting and pathetic tale.

HOMŒOPATHIC CALENDAR FOR 1897. Published (in German) by the Homœopathic Centralapotheke of Doctor Willmar Schwabe, of Leipzig, Germany.

This paper-covered brochure comprises a calendar of events noteworthy in the history of homœopathy and, among other things, a "gallery" of homœopathic celebrities, besides a number of sketches, stories, etc.

AUTOSCOPY OF THE LARYNX AND TRACHEA. By Alfred Kirstein, M.D., and Max Thorner, M.A., M.D. Cloth; 12mo; pp. 68. Price, 75 cents. F. A. Davis Co., Philadelphia.

A handy and convenient little volume teaching of direct examination without a mirror.

THE BADMINTON MAGAZINE. Price, 30 cents; $3.50 per year. Longmans, Green & Co., New York.

The January issue is particularly interesting. Alex. Innes Shand writes of "The Coverts;" "The Lighterman" is by William Pigott; "More Notes on Old English Games" is by Antony Guest; "Anecdotes of Indian Shooting," by Colonel H. Ward, C.I.E.; "Hooks and I," by the Marquess of Granby; "Nights with an Old Gunner," by C. J. Cornish; "'Not the Usual Way,'" by Owen Rhoscomyl; "Between Two Fires," by Guy Cadogan Rothery; "A Tobogganing Tour," by Miss Bessie McMorland; "Ladies in the Hunting Field," by Lady Mabel Howard. There are the usual Notes by "Rapier." The illustrations are by Archibald Thorburn, Maurice Greiffenhagen, A. Ludovici, Stanley Berkeley, Anthony de Bree, John Beer, J. Williamson, Lancelot Speed, and G. H. Jalland.

THE ATLANTIC MONTHLY. Price, 35 cents; $4.00 per year. Houghton, Mifflin & Co., Boston and New York.

The principal articles in the February number are: "Democratic Tendencies," by E. L. Godkin; "The Peabody Education Fund," by D. C. Gilman; "The Story of an Untold Love" (VIII–X), by Paul L. Ford; "A Study of American Liquor Laws," by C. W. Eliot; "The Juggler" (V), by Charles Egbert Craddock; "Sixty Days in Greece," by B. L. Gildersleeve; "Village Improvement Societies," by Mary C. Robbins; "The Rearing of a Reformer," by Thomas W. Higginson; "Example of Monumental Art," by Cecilia Waern; "Two Interpreters of National Architecture," by Henry Van Brunt. There are the usual departments.

THE AMERICAN NATURALIST. Price, 35 cents; $4.00 per year. The Edwards & Docker Co., Philadelphia.

The current issue contains an article entitled "A Grooved Stone Axe from the Ohio Drift," by H. C. Mercer; "The Biologic Origin of Mental Variety" (continued) is by Herbert Nichols; "Fossils and

Fossilization" (continued), by L. P. Gratacap; "The Bacterial Diseases of Plants: A Critical Review of the Present State of Our Knowledge" (continued), by Erwin F. Smith. Under Editorial Comment the following are mentioned: "The Protection of Wild Animals;" "The Mammoth in Alaska;" "The Gypsy Moth;" "Gifts to the Field Museum;" "Series of Lake Superior Rocks." There are the usual departments.

CALENDAR FOR 1897. Eckhardt & Becker Brewing Co., Detroit.

This is decidedly *the* Calendar of the year, and is worthy of a better purpose than merely recording dates, being finished with all the art and accuracy of an oil painting. In it, the old German in the brewery cellar has sat down to lunch. Upon a barrel head is his half-loaf of bread with clasp knife stuck therein, and beside it a bunch of radishes, and in his grasp a *stein* of foaming beer. His expression is one of satisfied anticipation of that which he is about to partake. As already remarked, this is a veritable work of art, and worthy to be embalmed in a frame of oak and then given a place in the dining-room.

AMERICAN KITCHEN MAGAZINE. Price, 10 cents; $1.00 per year. The Home Science Publishing Company, Boston.

This magazine opens the new year with an article by Edward Atkinson on "Home Life." The Papers on "The Chemistry of Cooking and Cleaning" are continued. "Old-World Scotland" is by Elizabeth O. Williams; "Are Employers Entitled to a Fair Return for Wages Paid," by Sarah S. Teall. There are the usual departments.

THE MONTHLY ILLUSTRATOR AND HOME AND COUNTRY. Price, 10 cents; $1.00 a year. Monthly Illustrator Publishing Co., New York.

In the January issue Arthur Inkersley writes of "The City of Orizaba, Mexico;" "An Obscure Life" is by Clara S. Ross; "An American Artist Colony in France," by Polly King; "The Mountain Gold," by Mary T. Earle; "What Might Have Been," by Will M. Clemens; "Whist and its Masters" (VI), by R. F. Foster.

REVIEW OF REVIEWS. Price, 25 cents; $2.50 per year. Review of Reviews Co., New York.

In the January number Theodore Roosevelt writes of "How Not to Better Social Conditions;" "Ten Practical Suggestions for Currency Legislation" are from ten students of finance; "Some Reputations in the Crucible of 1896" is by W. T. Stead; "A Typical Englishman" is by Baron Pierre de Coubertin; "Voice Photography and Rational Voice Production," by Laura C. Dennis.

THE MIDLAND MONTHLY. Price, 15 cents; $1.50 per year. Johnson Brigham, Des Moines, Iowa.

In the current number "The Truth about 'Ben Bolt' and Its Author" is told by A. H. Noll; J. W. Emerson's "Grant's Life in the West" is continued. The fiction department is excellent, "An Old Maid's Canvassing Experience" seeming like a leaf from nature.

Therapeutic Brevities.

Morphine an Antidote to Potassium Cyanide.—Six grains of morphine were injected under the skin of the back of a dog, when after a short period of excitation he slept. At the end of an hour, the animal being still alive, in order to hasten death, a subcutaneous injection of ten cubic centimeters of a 3.3-per-cent. solution of potassium cyanide was administered, which produced a most surprising effect; the creature awoke and became very lively, this condition persisting for some time, when he was seized with convulsions. He died an hour and a half after the injection of the cyanide. The evidence goes to show that cyanide of potassium neutralizes the effects of morphine, and that morphine retards the toxic action of cyanide.

Subsequently a series of experiments were made on mice. After establishing the minimum fatal dose of morphine, and also of cyanide, animals were subjected to injections of the latter, and subsequently to injections of morphine, when it was found that those that had received fatal doses of opium alkaloid could be saved by means of potassium cyanide, and *vice versa*. Thus the two drugs appear to be mutually antidotal.

The theory enunciated regarding the mechanism of neutralization is, that through the influence of the iron in the blood, the latter being an alkaline medium, there are formed Prussian blue and oxide of morphine.—*Münchener Medicinische Wochenschrift.*

Oxygen After Ether.—Inhalations of oxygen most effectually and rapidly remove the unpleasant after-effects of ether, though some cases receive much more benefit from its use than others; in the most favorable the nausea is relieved or prevented, consciousness quickly recovered, the breath entirely deprived of the odor of ether in a very short time, and the feeling of malaise, so frequently complained of, absent. Some are not benefited, but positively harmed. In one instance convulsions appeared soon after inhaling the gas. The best method of administering after etherization is by a soft-rubber catheter gently introduced into the nares until the eye is approximately opposite the opening in the trachea. It is desirable that all cases in which oxygen has been used after etherization should be reported, so that the profession can be assisted in determining those most likely to be benefited, also those in which its use is contra-indicated. This was recommended by Professor Jackson when ether was first administered.—*Boston Medical and Surgical Journal.*

Granular Conjunctivitis.—Iodized glycerin —equal parts of glycerin and iodine tincture —applied every day or two, according to the irritation, to the entire extent of the diseased mucous membrane, soon causes the latter to present a smooth appearance as if varnished; pannus disappears very rapidly. The value of this medicament appears equal to copper 0.76 in glycerin 10.00. Some patients support the iodide better than the copper, and reciprocally.

The treatment of chronic trachoma by solid copper sulphate is so painful and tedious that I prefer surgical methods followed by medication: in the early inflammatory stages scarifying freely, and later using expression where the granulations are soft; in the still later cicatricial stage, where there is little to express, I apply grattage by means of a tooth brush saturated with mercury cyanide, one to four per cent., which is much less irritating than corrosive sublimate.—TROUSSEAU, in *Annales D'Oculistique.*

Obstinate Acne.—The treatment which is most satisfactory consists in incising each vesicle or pustule, as the case may be, with the fine point of a knife and placing a drop of hydrogen dioxide well into the cavity—a wooden toothpick trimmed down to a flat point and dipped in the dioxide answers every purpose. One such operation usually suffices to effect a cure of the particular vesicle or pustule. Pure carbolic acid may be employed in pretty much the same manner, but while it permanently destroys the eruption, there is greater pain, and liability to leave behind visible pits or cicatrices. The dioxide is as effectual, and in no instance is there disfigurement. The comedones and finer eruption are scraped off with a knife, and some mild alkaline soap and warm water used on the face once a day. In some instances, where the skin is disposed to be harsh, cold cream is used with massage once every day or two. —*Texas Medical Journal.*

Gonorrhœal Conjunctivitis.—Wipe off the eyelids with a piece of absorbent cotton soaked in a three-per-cent. solution hydrogen dioxide, then instil twenty to thirty drops of the same solution between the lids, or use it as a spray, continuing until there is little or no bubbling. Next evert the upper lid, and instil by means of a cotton wound-probe—over the palpebral conjunctiva into the culde-sac and then to the ocular conjunctiva, carefully avoiding the cornea—a solution of nitrate of silver, ten to sixty grains to the ounce; instil four or five drops of sweet oil thereafter. The nurse should also be taught to cleanse the eye with the boric-acid solution every half hour or hour. Ice-cold compresses and atropine, when indicated, complete the treatment.—*Proceedings of Ophthalmological Section American Medical Association.*

Hot Water and Ulcer of the Stomach.—The drinking of hot water has become very popular, but it is necessary to sound a warning. Dogs submitted to water about the heat usually prescribed for patients—introduced through a tube into the stomach—were killed from day to day and week to week, and it was found that this treatment induced a hyperæmic spot, which in course of time became ulcer of the stomach. A great many cases of ulcer of the stomach occur in cooks, and it is possible it is induced by tasting hot soups, etc. I was once visited by a cook for whom the drinking of very hot water had been prescribed, which very much aggravated her condition; she was suffering from ulcer of the stomach.—ACHILLES ROSE.

Nymphomania.—Search carefully for local causes, such as may occasion pruritus vulvæ —vaginitis, vegetations, vulvitis, eczema, syphilis, herpes. Investigate especially as to diabetes. Where nervous disorders are suspected, bromides in medium doses are indicated; when associated with opium, they combat in an effective manner the exaltation of the venereal appetite. Camphor may be added, and when insomnia coëxists chloral is to be given at night. Local applications are useful. Cocaine in lotion or ointment has the preference. Hydrotherapy is indicated in all cases. When scientific douchings are not possible, applications of cold water to the vertebral column at bedtime are beneficial.—LUTAUD.

Sage in Hyperidrosis.—Infusion of sage is again recommended for the treatment of hyperidrosis in tuberculous subjects as well as those suffering from leukæmia, rheumatic polyarthritis and typhoid fever; in thirty-eight cases where it was tried there were only two failures. Steep forty-five grains of sage leaves in half a pint of water and let the patient take a cupful in the morning, one during the course of the day, and still another before retiring at night—or the tincture of the leaves may be given in twenty-drop doses in the morning, and from twenty to forty drops at night. *Salvia officinalis* has a proper place in the front ranks of antisudorific remedies.—*Medical Week.*

Epilepsy.—To thirty or forty grains of *Adonis vernalis* in five ounces of boiling water (filtered), is added 150 to 170 grains of potassium bromide and two to three grains of caffeine. A teaspoonful of this mixture is given four times daily in water or sweetened milk.

Adonis is known to act upon the heart as a stimulant or tonic, something after the manner of digitalis, increasing arterial tension, while the potassium acts upon the vasomotor apparatus. In combination it is possible it may produce more positive action in controlling the circulation.—*New York Medical Times.*

Erodium Cicutarium.—This is one of the Geraniaceæ, and will be found to act upon uterine muscular substance even when the latter is resistant to ergot, consequently it is of value in metritis, fibroma, and after abortion; in one case of cervical polypus, after two days' use the growth was spontaneously expelled and the os closed. Notwithstanding its use may sometimes require to be prolonged, so far as known it induces no ill effects. The dose is a tablespoonful, every two hours, of the infusion—one part of the drug to twelve of water.—*La Médecine Moderne.*

Potassium Iodide.—The catarrhal and cutaneous disturbances which sometimes follow the administration of this drug are comparatively familiar experiences. Jonathan Hutchinson frequently noted as another effect of the remedy a sense of numbness and dulness of the skin, and declares his conviction it often produces symptoms which simulate sensory paralysis and cause much anxiety to the patient. These symptoms, however, disappear when the use of the iodide is discontinued.—*Glasgow Medical Journal.*

Whooping-cough.—Schulze is of the opinion that rectal injections of quinine act more promptly than suppositories. Given three times a day for a week, he declares the severity of the disease will generally be found to have been broken; continue then once a day for another week. The dose is fifteen one-hundredths of a grain for each month (a grain and a half for each year) of the child's age. The injections must be small and administered carefully.—*Therapeutische Wochenschrift.*

Oil of Cade.—Oleum Juniperis oxycedrus is a most valuable though old-fashioned remedy, once extensively employed for the relief of eczema, lepra, and kindred skin disorders, and that, too, with far better results than more recent drugs; it has effectively relieved many cases of alopecia. The difficulty is to get the true oil—usually a product obtained from the *Juniperis communis* is substituted. A good rule to observe is, purchase only in original packages imported direct from Aix-la-Chapelle.—*Western Druggist.*

Removal of Pterygium.—Three years ago I gave up touching the body of the pterygium, and have since removed the head and opposed further progression by cauterizing the union of the head and the body a little behind the sclero-corneal limbus; the cauterization should reach the sclera. The curette should be substituted for the knife in detaching the adhesions to the cornea, and the operation is followed by good transparency of the latter. —Trousseau, in *Annales D'Oculistique.*

Puerperal Convulsions.—Are you afraid to administer a teaspoonful of fluid extract gelsemium in a case of puerperal convulsions? I have had occasion to do so a number of times, and with gratifying results. Try it, and when you have used successfully in a quiet way fifteen years, some blessed scientist will discover that it is all right, and tabulate a few cases for you to laugh over.—Doctor Skinner, in *Louisville Medical Monthly.*

Varicose Veins.—Pulsatilla is often of benefit in the treatment of varicosities, inasmuch as it acts upon the vascular system, and above all relaxes the right side of the heart, the veins and the capillaries. Witch-hazel much resembles pulsatilla in this respect, and sometimes is even more beneficial; it causes dilatation of the blood-vessels with blood stasis and sequences.—*Allgemeine Homœopathische Zeitung.*

For Falling Hair.—

℞ Tincture red cinchona, 2 ounces.
Tincture cantharides, 1 drachm.
Carbolic acid, 1 drachm.
Tincture Ignatia, 15 minims.
Cologne-water and cocoanut oil, of each sufficient to make ½ pint.

Make one or two applications daily.

—*Extraits du Formulaire de Vienne.*

Ophthalmia Neonatorum.—Instillation of a few drops of fresh lemon juice into the infant's eyes, immediately after birth, is a very excellent means of preventing purulent ophthalmia, and is comparatively painless; as a

rule it does not cause conjunctival irritation, though now and again there may appear slight catarrhal phenomena, which, however, quickly subside without treatment. — *Gazeta Lekarska.*

Gonorrhœa Prophylactic.—Blodasewski proposes the instilling (not injecting) of one or two drops of a two-per-cent. solution of nitrate of silver into the meatus after coition, a third drop being allowed to flow over the frænulum. This is so simple that it can be carried out by any one.—*North American Journal of Homœopathy.*

Sterilized Milk.—Boiled milk requires much more digestive effort than does unboiled, as in the latter the serum-albumen and nucleated cells are absorbed directly by osmosis without chemical change. Milk may be warmed to 160° F. without interfering with its digestibility by coagulation of the cell and serum-albumen.—*Atlantic Medical Weekly.*

Specific for Exophthalmic Goitre. — After treating many cases I believe I have found a specific in *Fucus vesiculosis* in doses of thirty drops of the tincture three times daily. I would be pleased to hear from others who have had any experience with bladder-wrack in this malady.—H. J. Knapp, in *Homœopathic Recorder.*

Urinary Incontinence.—Where the urine is dark in color and concentrated, it may very often be successfully treated by dessertspoonful doses every four hours (in water) of potassium citrate and sweet spirit of nitre, each four drachms, with water added to make the mixture up to a full ounce.—*New York Medical Reporter.*

Sambucus Nigra as a Diuretic.—A strong maceration decoction of the "second" bark of *Sambucus nigra* is a diuretic especially efficient in dropsy when other remedies have failed and when it is desirable to keep up a diuresis that has been induced by digitalis, caffeine, or the like. — *Bulletin Général de Thérapeutique.*

Puerperal Eclampsia.—Norwood's tincture of veratrum viride in ten- to twenty-minim doses, preferably hypodermatically, is said to be distinctly an American practice. The initial dose can be safely followed, in from thirty minutes to an hour, if necessary, by a dose of from five to eight minims.—Bauer.

Otorrhœa and Hydrogen Dioxide.—In cases of purulent otorrhœa there is danger in using peroxide of hydrogen; the solution itself is irritating, and the quantity of gas liberated when the solution comes in contact with pus may give rise to sufficient pressure to injure the ear.—*Journal of Otology.*

Fœtid Perspiration of Feet.—

Fennel oil, distilled, 2 pints.
Chloral hydrate, 70 grains.
Borax, 30 grains.

Wash the feet morning and night.—*The Practitioner* (London).

Chloral in Labor.—In long, slow accouchements in which the pain sense is greatly increased, benefit will be derived from the administration of ten grains of chloral hydrate in distilled water, repeated every hour until three doses are taken.—E. P. Davis.

Wild Thyme in Whooping-cough.—

℞ Dried thyme, 5 parts.
Boiling water, 12 parts.

M. Infuse for ten minutes, sweeten to the taste, and give a tablespoonful every hour.

—*Journal des Praticiens.*

Sciatica.—In a case apparently of neuritic character, with a rheumatic history, marked relief followed the administration of wine of colchicum root in doses of five minims, gradually increased to ten, three times daily.—*Philadelphia Polyclinic.*

Sweet Seidlitz Powders.—As a novelty it might be advisable to introduce seidlitz powders sweetened with a fraction of a grain of saccharin, as has been suggested by an English exchange.—*Western Druggist.*

Thrombosis.—An ointment of belladonna and mercury, equal parts, is useful to relieve the pain if applied over the course of the vein.—*College and Clinical Record.*

Congenital Constipation.—A tablespoonful of cream several times a day before feeding is often most effective.—*Medical Summary.*

Peritonitis.—An ice-pack applied to the abdomen often affords much more relief than stupes of turpentine, etc.—I. C. Wilson.

Medical Progress.

Some Internal Metastases of Gonorrhœa.—Internal pathology has a good deal to do with syphilis, and the same is true of gonorrhœa: it is these disturbances, caused in the internal organs by gonorrhœa, which I propose to discuss under the name of "internal metastases of gonorrhœa."

The best known of these metastases is gonorrhœal articular rheumatism, although the theory according to which the gonorrhœa is the causal agent of the articular rheumatism so frequently associated with this disease, was at one time severely criticized. At present, however, the discovery of the gonococcus has settled this question by proving the relationship existing between gonorrhœa and consecutive articular rheumatism. It is very difficult, it is true, to detect the presence of Neisser's bacillus in the internal organs, though it has been met with in the bladder of patients suffering from gonorrhœal cystitis, in peri-uterine purulent collections, and abscesses following primary inflammation of the urethra; in all such cases, however, it was found in tissues situated in the immediate neighborhood of the urethra and bladder. As far as I am aware, the gonococcus has not been discovered in the pus in pyelitis, for instance, which nevertheless must be regarded as an affection unquestionably dependent upon gonorrhœa; nor has it always been met with in the joints in cases of arthritis, which its origin, evolution, and severity proved to be due to gonorrhœa. On three or four occasions only has it been possible to discover gonococci in joints affected with inflammation of gonorrhœal origin. One case was reported by Uffreduzzi, and in the others Neisser detected the microbes in the fluid evacuated by aspiration from the diseased joint.

I recall these cases in order to show that the gonococcus is capable of migrating, and that it is not merely propagated *per continuitatem* along the mucous membranes of the organs in direct contact with the urethral mucosa, but may also be disseminated through the lymph-ducts and blood-vessels, being thus deposited at a greater or less distance from the original site, in a region where it is capable of determining a fresh affection without connection with the primary disorder, forming, consequently, a genuine metastasis.

The existence of gonorrhœal articular rheumatism as a morbid entity has, therefore, been proved beyond question by bacteriological examination, and in addition it has been shown that the gonococcus is, generally speaking, capable of determining metastases.

It may be assumed as almost certain that the gonococcus is transported in the organisms by cells, for it is invariably embedded in a cell, either of mucus or pus, and it is probable that these cells enter the lymph-ducts and are thus taken up by the circulation.

The second variety of metastasis, which has been investigated more thoroughly in France and England than in Germany, implicates the spinal cord, the resulting lesions being principally myelitis and meningomyelitis. It was, of course, impossible to suspect the existence of such a disease as gonorrhœal myelitis before the infective character of gonorrhœa had been recognized. Before the discovery of the gonococcus, various hypotheses had been propounded to account for the origin of this myelitis; it had been included, for instance, in the group of reflex paralyses, by application of Marshall Hall's theory of reflexes to certain pathological processes involving the myel. It was assumed that peripheral stimulation, which sometimes gives rise to a state of irritation, is also capable of determining phenomena of paralysis.

Steinlein published cases of disease of the bladder, followed by paralysis of the spinal type.

Romberg refuted the theory of paralysis by reflex action, and other investigators have published a large number of cases of spinal paralysis, in which gonorrhœa preceded the appearance of the myelitic affection, cystitis consecutive to the gonorrhœa forming the connecting link between the latter and the paralysis.

In a recent thesis I described three cases of myelitis following upon gonorrhœa. In two of these the relationship between the myelitis and the gonorrhœa had been clearly recognized. In two cases the spinal cord was examined post-mortem and myelitic lesions were found to exist, but it was then, of course, impossible to determine whether these were really of metastatic origin, as neither the infective character of myelitis nor the existence of the gonococcus were known at that time.

Subsequently I published another case of infective meningomyelitis, following upon gonorrhœa; examination of the spinal cord gave evidence of myelitic alterations. A careful investigation was made in this case, in order to discover the manner in which meningomyelitis results from the gonorrhœa; but it was impossible to detect, either in the pia mater or in the myel itself, the gonococcus or any other microbe.

It may be assumed that the process consisted either in ascending neuritis, that is to say,

inflammation, originating in cystitis, which had been propagated to the spinal cord, or in direct transmission of the microbe. The latter hypothesis is more plausible, for the patient suffered also from peritonitis due to extensive inflammation of the neck of the bladder, which in its turn was determined by the gonorrhœa. It is possible, therefore, that the gonococci in this case had been transmitted directly to the spinal cord.

All these cases have recently been collected by Doctor Barrie, who adds another in which bacteriological examination was also resorted to. No gonococci were discovered, but in the fluid from the dura mater there were found, embedded in cells, diplococci, which resembled gonococci in appearance, but did not give Gram's reaction; that is to say, they were not, like Neisser's gonococcus, bleached by being subjected to Gram's method of treatment.

So far, therefore, the presence of the gonococcus in the spinal cord of patients suffering from gonorrhœal myelitis or meningomyelitis has not been proved. There can be no doubt, however, of a direct relationship between these affections and gonorrhœa. Barrie is inclined to think that they are the result of secondary infection.

Gonorrhœal endocarditis constitutes a third variety of metastasis.

It is not only articular rheumatism that determines metastases in the heart, but also pneumonia, phlebitis, septicæmic processes—in short, all kinds of infective diseases capable of damaging the endocardium.

Cases tending to prove the relationship between gonorrhœa and endocarditis were first reported from France, but later and more conclusive evidence has been brought forward in German medical literature.

In 1862 or 1863, Traube described a case of endocarditis. Later on I also applied the epithet "gonorrhœal" to a case of ulcerative endocarditis, after which several cases of gonorrhœa, followed by cardiac affections, were reported by French investigators.

In 1881, in a monograph on intermittent fever as a complication of endocarditis, I described two cases of ulcerative endocarditis, in one of which this affection was preceded by gonorrhœa.

In 1893 another case of endocarditis following gonorrhœa came under my observation, and in this case I found in the valvular granulations microbes identical with the gonococcus. The true nature of these microbes was proved: by their form; by their intracellular situation; by their staining under the influence of methyl-violet, and becoming colorless when subjected to Gram's method of treatment. No cultures could be obtained; but bearing in mind that the gonococcus, embedded in a cell, may enter the circulation, be transported to a distance, and determine metastases, there can be no doubt that these microbes were gonococci, inasmuch as they presented the characteristic staining reactions. In this case, therefore, there can be no question of a post-mortem immigration of gonococci.

Since then another case has been published in America, in which gonococci were discovered in the myocardium. Neisser, as I have already stated, has met with them in articular, and also in pleural, effusions.

Moreover in another case of ulcerative endocarditis, anatomical specimens of which were sent to me by a colleague, I also found gonococci in the granulations on the cardiac valves.

It appears, therefore, to be proved beyond the shadow of a doubt that the gonococcus is capable of determining ulcerative endocarditis.

It has long been known that gonorrhœa is not as harmless a disease as has been generally assumed. It is obviously liable to give rise in various organs to serious complications, which should be more carefully investigated than has hitherto been done.—Leydon, in *La Semaine Médicale.*

The Curiosities of Aphasia.—The vagaries of cerebral lesions involving more or less pronounced loss of the power of speech are well known even to the writers of cheap novels, but the explanation of the curious dissociation of the speaking and writing faculties still continues to puzzle those whose work lies in this direction. In the discussion of an interesting case of Doctor Bastian's which was brought before the last meeting of the Royal Medical and Chirurgical Society, Doctor Dickinson mentioned the case of a man who had lost the power of articulate speech but retained the power of writing, of which he availed himself to give full details of his desires and sensations. The interesting feature in this case was the fact of the patient being left-handed, so that although he had complete right hemiplegia he still retained the ability to write. It may be reasonably supposed, moreover, that the corresponding centre in a left-handed man is situated in a different part of the brain from that of the normal dexterous individual so that it escaped injury in presence of a lesion of the left hemisphere. Another curious fact which though often recorded is still of the na-

ture of a mystery, is that many aphasia patients retain the ability to count and to write figures from dictation when they are totally unable to express thoughts in words or to write words from dictation. It has been suggested that number symbols are registered in a part of the brain which is distinct from the ordinary word centre. In support of this view it is urged that figures are learned in a different way from letters and that their number is smaller than the number of letters forming the alphabet, the process of remembrance being consequently less complex than with words, each of which involves a conception. It is true that numerals are committed to memory by rote, *i.e.* parrot-wise, but so are the letters of the alphabet. More to the point is the argument that figures are registered only in the visual centre and are largely acquired by the aid of the tactile centre—wherever that may be, for its whereabouts is still unknown. It must be borne in mind that the visual and the auditory centres do not necessarily comprise the auditory and visual word-centres respectively, and Doctor Bastian suggests that the latter are probably areas less highly specialized in function. Sir William Broadbent, on the other hand, holds that there is a special centre for idealization, as well as one which he calls the word-centre. He believes that a particular auditory or visual impression calls up associated impressions from all the sensory centres, and that these, by the aid of the centre for idealization, are welded into a homogeneous whole. According to this observer, therefore, the conception of a word is a blend of all these associated impressions, and it is by a further association of these conceptions that ideas are formed. It is easy enough to postulate centres in the brain in response to a psychological need, but until anatomy or pathology enables us to localize the exact spot their very existence must remain a matter of doubt. The difficulties in the way of localizing such a centre as that for idealization, must of their nature be quasi-insuperable, and we have to choose between a working hypothesis which may lead us astray, or a confession of ignorance which becomes more painful the more frequently it has to be reiterated.—*Medical Press and Circular.*

The Risks of Cerebral Surgery.—In view of the striking advances that have been effected in the technique of brain surgery within the last decade, one is sometimes tempted to believe that this organ can be even extensively injured (in a surgical sense) without any great measure of risk, and it is well to be reminded from time to time that such is not the case even when the operations are done by surgeons who represent the acme of skill in this direction. These considerations are suggested by the notes of a case under the care of Doctor Guthrie. His patient was afflicted by violent spasmodic movements of the arm altogether beyond his control, which rendered him a dangerous person to approach within striking distance. In similar cases (for several such are on record) the surgeon has attempted to moderate the disordered movements by repeated and extensive tenotomies and neurotomies, but, as it would seem, with signal want of success. Doctor Guthrie, therefore, determined to try more drastic measures, and persuaded a surgeon to trephine the skull and remove the arm-centre after this had been carefully localized by the aid of the electrode. The immediate results were most alarming, for symptoms of bulbar mischief supervened, and for a time the patient's life was in the greatest jeopardy. He, however, recovered, and at first the movements remained in abeyance, but they subsequently returned, and he left the hospital after three months' treatment in much the same condition as when he entered. A strikingly similar case in all respects has been reported in recent literature, and in this also the patient rallied from her perilous plight only to find that her last state was worse than the first. The results of surgical treatment in this curious class of cases are, therefore, far from reassuring, and it is doubtful whether any means are as yet available for dealing with them.—*Medical Press and Circular.*

Results of Removal of Uterine Appendages.—Loss or perversion of sexual appetite, vaso-motor disturbances, changes in pigmentation, are sequences of this operation; in addition, frequent and severe attacks of neuralgia, chiefly in both ovarian regions, may occur, with pain referred to the uterus, intestines, bladder, or rectum,—the suffering may be much more marked than before interference. Again the preclusion of child bearing not seldom leads to a profound melancholy associated with diminishing sexual desire.

All these phenomena may be accentuated by physical sequels, such as fistulas, ventral hernias, painful cicatrices, adhesion of the stump to various organs. The ligature may become septic, and lead to abscess formation and a suppurating tract, which only heals after the ligature has been discharged. Lastly, profuse leucorrhœa and metrostaxis may ensue, and be persistent. No mutilation should

be performed when there is any chance of relieving the inflammatory condition by means of colpotomy and drainage; if partial disease of ovary and tube exist, an attempt should be made to preserve the healthy portions by resection. If the disease of the ovaries and tubes present is so marked that complete removal is considered necessary, less subsequent nervous phenomena occur if hysterectomy be performed in addition; spaying for neuroses should only be resorted to as a last resource.—E. E. Montgomery, in *Journal of the American Medical Association.*

Rheumatic Affections and Gout.—In chronic rheumatism it will be found as a rule that the joints of the hands are symmetrically affected, and to an equal degree on the two sides. This holds good, however *bizarre* the deformities may be. Very rarely, although the joints affected are symmetrical, the deformities are asymmetrical. In one case the deformities of the fingers of one hand showed flexion, extension, and flexion of the three joints of the fingers; whereas in the other hand they showed extension, flexion, extension; in another the middle finger of the left hand showed extension, flexion, extension, all the other fingers of the two hands being in a position of flexion, extension and flexion. In examining deformities of the hands care must be taken to exclude those produced by Dupuytren's contractions or by old injuries, which, as a rule, produce asymmetrical deformities. When chronic changes in the hands produced by gout are examined there will be found an entirely different state of affairs. If only a few joints are affected they are quite asymmetrical; the extent of the affection is unequal, and the deformities produced are dissimilar. If all the joints of both hands are affected, as occasionally happens, it will still be found that the amount of affection is very unequal, and the deformities are also quite different. This is a rule in gout to which there is no exception.—*British Medical Journal.*

Magical Remedies.—In former times many curious remedies were used in the treatment of disease. Thus, the Magi, or wise men of the East, knew of herbs which, wrought into pills and swallowed in wine, would make the guilty confess their secrets. They also had an herb for begetting good and handsome children, and a wort to revive old love, even when it had turned to hate. All these had magic names. They thought highly of the common mole, and taught that, if any one swallowed its heart, palpitating and fresh, he would become an expert in divination. The heart of a hen, placed upon a woman's left breast while she slept, would make her tell her secrets, if only her memory served her. Drinking the ashes of a pig's pizzle in sweet wine, and urinating into a dog's kennel, was said to prevent urinating in bed. If a man, in the morning, made water a little on his own foot, it was held to be a preservative against *mala medicamenta*, or drugs intended to do him harm. Pliny tells how to cure ague by amulets; by the dust in which a hawk has rolled; by the longest tooth in a black dog; by a solitary wasp caught in the left hand; by the head of a viper cut off, and by its living heart cut out and wrapped in a piece of cloth; by the snout and tips of the ears of a mouse, and so on.—*Medical Record.*

Senile Epilepsy.—There is a variety of epilepsy observed in old persons who are affected with arterio-sclerosis of the cerebral arteries or with a heart lesion, which closely resembles essential epilepsy; it is dependent upon an insufficient flow of blood to the brain, and the sufferers are frequently addicted to alcohol. The epileptic seizures are dependent upon cerebral anæmia, may recur several times a week, and are accompanied by loss of consciousness and clonic convulsions. The attacks are of short duration, are associated with slowness of the pulse, and may be artificially induced by compression of the carotids, when in from thirty to sixty seconds the muscles of the mouth begin to twitch, followed by those of the hands and eyes; then the subject loses consciousness. The extremities are thrown into clonic convulsions; the pupils dilate; respiration becomes stertorous; and the pulse may fall from 80 to 48. It is quite necessary to distinguish this variety from the essential form of epilepsy, as the usual treatment by the bromides will either be positively injurious or of no effect. A heart tonic is necessary.—Naunir, in *La Semaine Médicale.*

The Earliest Human Ovum—At the recent meeting of the Naturforscherversammlung at Frankfort-on-Main, Leopold exhibited microscopic sections of the youngest human ovum ever detected. The uterus of a woman, aged thirty, was removed for cancer of the cervix, the interior carefully examined, and an undoubted ovum as big as a lentil

found, making a prominence on the surface of the uterine mucous membrane, which was hypertrophied in its neighborhood. The periphery of the ovum was bounded by a deep groove devoid of mucous membrane. After careful inquiries it was concluded that the ovum had reached the eighth day after conception. Great pains were taken, when accurate drawings had been made of the undisturbed ovum, to procure successful sections. The arrangement of the villi, and the opening of the arterioles of the endometrium into the intervillous spaces, came out very clearly. Kanthack has added to the museum of St. Bartholomew's an instructive specimen of a very early human ovum in its membranes. Histological study of the human embryo and its envelopes during the first few weeks of development is much needed. We must not rely too far on homologous structures in the lower mammals, where the anatomy and physiology of the genital tract differ in important details from the same in our species. —*British Medical Journal.*

Fatal Diarrhœa Due to Ascaris.—The patient, a child ten years of age, came to the local municipal hospital for treatment of diarrhœa. She looked very ill; the eyes were sunken, pulse small and thready, face shrunken and anxious; that morning had four or five watery motions, one big round worm being passed—that led to the conclusion the diarrhœa was set up by worms. One two-grain powder of santonin was given along with a stimulant mixture. Next morning she passed two worms. The medicine was continued, and the following day she passed nine worms; the day after nine; the next day twenty-eight; then thirty-one; till in eight days she passed 111 worms. The diarrhœa was kept under control by suitable astringents, but she gradually got worse, and died a week later. Considering the number of worms passed, it is no wonder that these set up an irritation which brought on fatal diarrhœa. Whether the diarrhœa was due to quite a distinct cause and the worms did not contribute to the affection I leave to the decision of others.—Doctor Mitra, in *Boston Medical and Surgical Journal.*

Early Sign of Meningitis.—A constant sign of commencing meningitis consists in the inharmonious movements of the chest and diaphragm. It exists from the beginning and may serve to reveal it even in insidious cases, but requires careful searching to detect it. The chest and abdomen must be bared, but not suddenly, or the hyperæsthetic skin will take on accidental movements from the action of the air.

In the first period of meningitis irregularity of the rhythm and then inequality of the amplitude or development of the chest are seen. Another sign is the irregular type of respiration and dissonance of the movements of the chest and diaphragm. The respiration is effected by the lower respiratory muscles of the chest. There is either immobility or depression in the umbilical region with each inspiration, instead of the normal elevation. These movements are not connected with the Cheyne-Stokes type of respiration.—*Medical Standard.*

Psychological Status of the Negro.—The absence of social restraints, either in the form of crude superstitions or of complex sentiments and ideals, explains perhaps the frequent outbursts of ferocious passions on the part of negroes; the same condition insures also a primitive state of nature in their children. Scientific research affords proof of the fundamental unity of mind, but it gives no less decisive proof of differences due to ancestry and training. The negro child is psychologically different from the white child; in automatic power he is superior, but in the power of abstraction, of judgment, and analysis he is decidedly inferior. This fact must be recognized in the school training. In purpose and in liberal provision the education of the negro should be the same as that of white children; in detail and method it should be adjusted to the racial plane on which he stands.—*Popular Science Monthly.*

Injury at the Elbow-Joint.—Be very guarded of prognosis in cases of injury at the elbow. A fracture into this joint, treated with the most far-seeing precautions, may be followed by more or less stiffness and disability. Begin passive motion as early as possible, delaying only long enough to allow the first pain and reaction from the injury to subside; in most cases this will allow some manipulation of the joint by the end of the first week.—*International Journal of Surgery.*

Osteomyelitis. — The chief diagnostic point in osteomyelitis is the acutely sensitive spot near the junction of the epiphyses. —Funkhauser.

The Medical Age.

Vol. XV. DETROIT, FEBRUARY 10th, 1897. No. 3.

Original Articles.

CHANCRE OF THE TONSIL.

BY E. P. STONE, M.D.*

The interest in the first case here reported lies not alone in the lesion being an unusual one, but as an illustration of the ease with which one may fall into error by having his mind too intently fixed upon the common venereal origin of syphilis. I doubt if any of us who watched this case will forget the lesson taught by the wonderful change from utter discouragement—while groping about in the dark, trying one remedy after another without the slightest benefit to the patient,—to the sense of satisfaction at seeing the almost uninterrupted progress to recovery, after the correct diagnosis was made and the proper treatment instituted.

August 30th, C. H. M——, aged 28, native of New York City, reported at sick-call with what appeared to be tonsillitis. Treatment for tonsillitis was prescribed.

September 10th. He was treated unsuccessfully by different local and general medication; throat worse instead of better; left tonsil more inflamed and more swollen; at the upper part of the tonsil there was an ulcer, which grew worse; externally the mass of glands behind the left angle of the jaw swollen. There had been no constitutional symptoms; the patient felt well except that he had dysphagia.

September 14th. Temperature, P.M., 100°; pulse 72.

September 15th. Temperature, P.M., 101°; pulse 92; there was considerable swelling of the soft palate, uvula, and corresponding parts, which increased the dysphagia. The tonsil was incised and spray from steam atomizer ordered.

September 17th. Temperature normal; tonsil smaller and less inflamed; external swelling very much less, simply outlining a very much enlarged gland. Steam atomizer omitted. Prescribed mercury bichloride 1 grain, potassium iodide 4 scruples, water 8 ounces; a tablespoonful of this mixture three times daily. Other treatment continued.

September 24th. The condition of the throat had slightly improved until this morning, when there was more pain; exudation cleaning off. The throat lately had very much the appearance of the secondary sore throat of syphilis, *plus* the condition of the tonsil. He was seen in consultation by two physicians, and among other points the question of what part, if any, syphilis played in the case was discussed. The patient denied all knowledge of any venereal infection; he was an intelligent, trustworthy man, who had been my bayman and under daily observation, therefore his statements were believed, especially as there were no lesions about the genitals. Solution of mercury and iodide was omitted.

September 30th. The soft palate above the left tonsil much swollen, and hard and brawny to the touch. Several punctures were made in the swelling, which bled freely, giving relief to the patient. The tonsil had less exudation on it.

October 13th. The condition of the throat remained about the same, with perhaps some slight improvement. This morning a syphilitic efflorescence appeared all over the body, and on examination intumescence of the inguinal, cervical, epitrochlear and post-auricular glands was found. It was now recognized that the ulcer on the tonsil was the primary syphilitic lesion; the throat had throughout the case some syphilitic characteristics; but so much reliance was placed on the man, that his—probably honest—statement of ignorance of infection, supported by the absence of lesions about the genitals, lead to a belief in the non-specific character of the throat lesion. It is not probable that the case originated from any bestial practices; syphilis was so prevalent in Alaska, where the ship was serving, that there were many opportunities for the non-venereal origin of the disease. Ordered pills of mer-

* Passed Assistant Surgeon U. S. Navy.

cury proto-iodide one-sixth grain each, one to be taken thrice daily; omitted all other internal treatment; changed gargle to saturated solution of potash chlorate.

October 18th. Pain on swallowing; nostrils occluded; eruption on face worse, most marked over nose and under eyes; it caused a good deal of itching. Ordered chloral and camphor ointment to face; vaselin to nostrils; iodoform and ether to tonsils; 1-to-5000 bichloride gargle.

October 20th. Less congestion of the throat, but more difficulty in swallowing; ulcer of tonsil worse; nostrils syringed with Dobell's solution. Ordered tartrate of iron and potassium, five grains three times a day.

October 21st. Was much worse; could speak only in a very husky whisper; there was a great deal of swelling of the mucous membrane of the fauces; right tonsil swollen and ulcerated; throat full of a tenacious, dirty-brown saliva; difficulty in swallowing and some regurgitation of liquids. Solution of chlorate of potash sprayed into the throat from steam atomizer. Mercurial ointment rubbed into external swelling; the proto-iodide pills had been increased one each day, and he was now taking eleven daily.

October 23d. Swelling of pharynx much less; ulceration less; was able to swallow solid food. This morning his throat was free from the tenacious saliva; entire body covered with a papular syphilide. The throat painted with a solution of nitrate of silver; atomizer omitted.

October 27th. Throat freer from ulceration and swelling than for some time. No more regurgitation of liquids into the nose. Omitted applications of nitrate of silver; changed gargle to chlorate of potash.

October 31st. Throat much better; omitted nasal douche. Was now taking twenty-one pills a day.

November 8th. Syphilide almost disappeared; there was a slight inflammation of the throat, which daily grew less; gums began to be a little sore and he had a slight diarrhœa. Was taking twenty-seven pills a day. He was discharged to duty, treatment to be continued.

The man remained under my personal observation and treatment for a year longer. During that time there was no further manifestation of syphilis, except a slight falling of the hair shortly after his return to duty; his general health improved very much. He was doing heavy work, as a coal-heaver in the fire-room of the ship, from the time of his discharge to duty.

The points in this history to be emphasized, and which should have been diagnostic, are: An ulcer and great swelling of the tonsil without any constitutional disturbance; the swelling of the glands about the angle of the jaw; and the hard, brawny feel of the tonsil and surrounding parts. The increase in the severity of the throat symptoms, about a week after the diagnosis of syphilis was made, I attribute to the presence of the secondary sore throat of syphilis, and mucous patches, which cause a considerable swelling of the mucous membranes of the throat. This subsided as the patient came under the influence of the specific treatment.

As chancre of the tonsil is not a common disease, I thought it might be of interest to study it. I have therefore collected what cases I could find in the then current medical literature that was available. I am able to report histories of eighty cases. Bulkley says:

> In all the descriptions of *sibbens*, as it occurred in Scotland, in the *radisyge* of Norway, in the *dithmarensis* of Holland, and other epidemic and endemic affections, now recognized to be syphilis, mention is made that the lesions first appeared in the throat. For a long time these conditions were not recognized as syphilis, the reason being stated that there were no lesions on the genitals, and that the disease was not commonly communicated by venereal contact.

The cases of chancre of the tonsils which undoubtedly occurred in the above epidemics are the first mention of the subject in medical literature, and their true nature was overlooked. The tonsil has been generally recognized as a possible seat of chancre only in recent years, although the earliest recorded cases date back a little more than forty years. The first cases recorded are those of Stark, reported in the *Edinburgh Medical and Surgical Journal*, 1851; Merc's and Gibert's, both reported in the *Bulletin de l'Académie de Médecine*, Paris, 1852; and Porter's in the *Dublin Medical Press*, October 5th, 1853.

The reports of the early cases do not seem to have arrested the attention of the profession. The French were the earliest writers to call general attention to this location of chancre. Rollet reported four cases in the *Archives Générales de Médecine*, 1859. To

Diday belongs most of the credit of having demonstrated the existence of primary chancre of the tonsils to the profession at large in 1861–1862. Since then cases have been reported from time to time, until during the last ten years—that is, since Legendre's article in *Archives Générales de Médecine*, 1884, and R. W. Taylor's in *Transactions of the New York Academy of Medicine*, 1886—there has been a comparatively large number of cases reported.

The following statistical statements will show the frequency of chancre of the tonsils. Fournier found none in 471 chancres, and only one case in 77 buccal chancres; Buzenet none in 21 buccal chancres; Melchior Roberts none in 202 chancres, of which 25 were extra-genital; Mason none in 33 extra-genital chancres; Nivet found 29 chancres of the tonsil in 581 cases of extra-genital chancres; Bulkley in "Syphilis Insontium" has about exhausted the literature of the subject and gives as the result of his researches 307 cases, as follows:

In France, Belgium and Colonies, 132 cases; Russia, Poland, and Asia, 56; United States, 26; Italy, 23; Austria-Hungary, 22; Germany, Switzerland, and Holland, 11; Great Britain, Ireland, and Colonies, 15; Denmark, Norway, and Sweden, 22; total, 307.

Different writers have often reported the same cases; so that considerable time and study were required to eliminate repetitions in the list of cases. I believe in my report no case appears twice.

Case 1.—DeMerli.* Male, aged 36. Left tonsil swollen and hard; left cervical glands swollen; dysphagia; later, syphilitic roseola. Genitals examined and found perfectly healthy. Cause: wife was syphilitic; disease contracted in some manner from her.

Case 2.—Taylor.† Female, aged 22. Left tonsil inflamed, the redness extending to the pillar of the fauces. Two weeks later the tonsil was much reddened, swollen, indurated and ulcerated; induration almost cartilaginous; ganglia of left side of neck and under jaw enlarged and matted in a diffused mass; no ulceration elsewhere. In due time a papular roseola and mucous patches appeared. Origin: unnatural practices.

Case 3.—Taylor.† Male, aged 9. Left tonsil swollen, markedly indurated, superficially ulcerated, and covered with a whitish film; ganglia of left side of neck and under the jaw swollen and matted together. Secondary syphilide appeared later; had no sore throat, no loss of hair, no constitutional disturbance. Origin: unnatural practices.

Case 4.—Wigglesworth.* Male. Right tonsil involved. The tonsil was excised. The wound ulcerated; the glands of the right side of neck, beneath jaw and ear, enlarged; there was great pain on swallowing. Subsequently there was loss of hair and general papular syphilide. Symptoms yielded easily to antisyphilitic treatment. Origin: the patient, a medical student, practiced mouth-to-mouth inflation of the lungs of a syphilitic still-born child.

Case 5.—Schirajew.† Female, aged 28. There was redness, swelling, induration, and exudation; indolent swelling of the ganglia of the neck. In due time there were general manifestations of syphilis. Origin: from association with a syphilitic woman.

Case 6.—Schirajew.† Female. Chancre on left tonsil. Origin: from her child, which was syphilized by its nurse.

Case 7.—Knight.‡ Male, aged 30. Chancre on left tonsil, appearing sixteen days after exposure; enlargement of the glands of the neck; roseola later. Origin: unnatural practices.

Case 8.—Knight.‡ Female, aged 28. Ulcer of tonsil; secondary symptoms, followed by improvement under specific treatment. Origin: supposed that a syphilitic with buccal lesions used her tooth-powder.

Case 9.—Fox§ (Forster, F. P.). Male. Right tonsil was swollen and red; under right angle of the jaw was a hard glandular swelling. The throat grew worse, an ulcer appeared on tonsil and persisted. Roseola and mucous patches appeared later.

Case 10.—Taylor.‖ Male. Right tonsil affected; later, general symptoms of secondary syphilis. Origin: unnatural practices.

Case 11.—Owsley.¶ Female, aged 18. Both tonsils were enlarged, the left one protruding beyond the median line; mucous membrane

---

* *British Medical Journal*, Jan. 24th, 1874.
† *Trans. N. Y. Academy of Medicine*, 1896.

* *Archives of Dermatology*, October, 1879.
† *Petersburger Med. Wochenschrift*, 1880.
‡ *N. Y. Medical Journal*, June 14th, 1884.
§ *N. Y. Medical Journal*, February, 1880.
‖ *N. Y. Journal Cutaneous and Genito-Urinary Diseases*, 1890.
¶ *N. American Practitioner*, March, 1893.

of the fauces was covered with a dirty-gray tenacious mucus; no fever; immense enlargement of sub-maxillary and cervical glands. When first seen secondary symptoms were present; amidst the buccal lesions the primary ulcer was recognized on the left tonsil, with indurated raised border and an excavated centre. No lesions found on genitals. There was great improvement under antisyphilitic treatment. Origin: from husband, who had mucous patches in the mouth.

Case 12.—Thiry.* Female, aged 23; poorly nourished, and eight months pregnant. Pain in throat, and dysphagia; large ulcer, grayish bottom, jagged edges, invading the upper part of left tonsil, running along the border corresponding to the soft palate, the left side of uvula, and expanding itself upon the superior wall of the pharynx; caused little inflammatory reaction. Gland by left angle of lower jaw enlarged to size of pullet's egg, painful and fluctuating; no eruption; genitals carefully examined and found free from lesions. Had lasted three weeks. Cause: kissing her mother, who had chancre of tongue.

Case 13.—Barthelemy.† Male, aged 28. Dysphagia from sore throat; general malaise; very vivid, intense, even violaceous redness of left side of throat; left tonsil swollen, very prominent, and showing a number of crypts, but not resembling follicular tonsillitis; a smooth, crescent-shaped, semi-oval plaque; situated upon the edge of the left pillar, so as to appear to lose itself and encroach upon the hypertrophied tonsil; it was, however, exclusively on the pillar. The lesion was more of an erosion than an ulcer; the face smooth, and the edges scarcely prominent, in color redder than normal, but scarcely redder than the neighboring parts; the tonsil hard and resisting, but the induration was especially marked on the pillar, where the erosion rested upon a thick, cartilaginous, and even parchment-like base. Below the left angle of the jaw there was a gland the size of a walnut, and the chain running along the mastoid muscle was enlarged. Deafness occurred from swelling, closing the Eustachian tube, and there was much pain radiating from the ear. Secondary symptoms were delayed, but later roseola and ulcers of the lips and tongue appeared. Origin not known.

Case 14.—H. Feulard.‡ Female, aged 21. Had an ulceration with yellowish base upon the left tonsil, which had lasted two months. Maxillary adenopathy of left side; no signs on body. Origin: not determined, but she lived with a syphilitic man.

Case 15.—H. Feulard.* Male, aged 11. Syphilitic roseola; anus and inguinal glands intact in spite of admitted habits of sodomy. Initial lesion probably on the tonsil.

Case 16.—H. Feulard.* Male, aged 20. Confluent syphilitic ulcers on tonsil. Cutaneous syphilides. Probably chancre of tonsil.

Case 17.—H. Feulard.* Male, aged 30. Had papular syphilide of trunk, neck, and palms of hands. He stated he had a chancre of frænum in July, which lasted twelve days and was accompanied by a suppurating bubo; this was called a soft chancre by Professor Spillman. The genitals did not present any trace of syphilitic chancre, but an examination of the throat determined that the left tonsil was hard and hypertrophied. At the left angle of the jaw was a ganglion the size of a small chestnut, which was the remains of a much larger ganglion. Diagnosis: old chancroid of the penis, syphilitic chancre of the tonsil.

Case 18.—H. Feulard.* Male, aged 23. Had complained of throat for three months; right tonsil swollen, indurated, and the seat of a yellowish exudation. There was roseola and great right submaxillary adenopathy.

Case 19.—Feulard and Verlin.† Male, aged 34. Chancre of left tonsil, with swelling of all the parts about the tonsil; considerable submaxillary adenopathy; anal and venal syphilides later.

Case 20.—Feulard and Verlin.† Male, aged 25. Chancre of tonsil, followed by numerous patches of mouth and roseola.

Case 21.—Feulard and Verlin.† Male, aged 26. Chancre of left tonsil, followed by syphilitic iritis and syphilides of skin.

Case 22.—Feulard and Verlin.† Female, aged 53. Chancre of tonsil; had large submaxillary buboes. Covered with erythematous syphilide.

Case 23.—Feulard and Verlin.† Female, aged 29. Tonsil red and very hard, chancre in process of healing. Submaxillary adenopathy, which was subsiding. Later, alopeciæ and papular erythematous syphilides. Origin: from pencil with which throat was cauterized for an angina.

---

* *La Presse Médicale de Belge*, Jan. 10th, 1886.

† *Annales des Maladies de l'Oreille et du Larynx*, 1880.

‡ *Ann. de Dermat. et de Syph.*, 1892.

---

* *Ann. de Dermat. et de Syph.*, 1892.

† *Ann. de Dermat. et de Syph.*, 1890.

Case 24.—Moul-Lavallée.* Male, aged 40. Chancre of the tonsil, followed by secondary lesions.

Case 25.—Moul-Lavallée (Calmeth).* Male, aged 18. Never had syphilis; had sore throat for three weeks, without any fever or dysphagia. Left tonsil much swollen, with ulcer on the surface; left submaxillary adenopathy; later roseola. Origin: using in common with others a crayon, which he put in his mouth.

Case 26.—Barham.† Female, aged 53. No history given. A case of chancre of tonsil, which was diagnosed as follicular tonsillitis, until secondary lesions of skin appeared.

Case 27.—Legendre.‡ Male, aged 25. Right tonsil red, enlarged, indurated; had a grayish exudation; excavated ulcer on the tonsil. Case mistaken for diphtheria until the appearance of secondary lesions. Had slight fever at night.

Case 28.—L. Brocq.‡ Male, aged 21. Right tonsil red, swollen, and presented a blackish placque of sphacelated aspect; right submaxillary and cervical adenopathy; general malaise but not fever. Improved under treatment, and tonsil subsequently removed. Diagnosis of gangrenous angina was made; syphilitic nature of the lesion was recognized after the appearance of syphilitic roseola, from the absence of any other suspicion of chancre.

Case 29.—L. Brocq.‡ Male. Right tonsil red, enlarged, and of cartilaginous hardness; ulcer on inner surface; right submaxillary ganglion enlarged; syphilitic eruption present.

Case 30.—P. Merklen.‡ Female, aged 64. Left tonsil of woody hardness and the seat of a deep, efflorescent ulceration destroying neighboring tissues; left submaxillary adenopathy. Solid food caused dysphagia. Diagnosis was epithelioma on old syphilitic soil. Iodide of potash was given to make a diagnosis, and caused such improvement that patient was discharged well July 23d. She returned September 16th with a true mucous patch of the mouth, rendering the diagnosis of chancre of tonsil certain.

Case 31.—Legendre.‡ Female, aged 63. Disease of six weeks' duration when seen. Excavated ulcer on the right tonsil; right submaxillary adenopathy; dysphagia and secondary eruption on body. Origin: from care of grandchild congenitally affected.

Case 32.—E. Lannois.* Male, aged 30. Had a history of two chancres a few years before, but no history of secondary symptoms. For one month had dysphagia and an ulcer on lower lip. Left tonsil and neighboring parts largely swollen, red and indurated; entire surface of tonsil occupied by an ulcer, deepest in the centre; non-painful left submaxillary adenopathy. Antisyphilitic treatment given, followed by improvement. Three weeks after being first seen an undoubted secondary eruption decided the case as a primary chancre; it had been diagnosed as a gumma.

Case 33.—Helot.* Male, aged 23. Dysphagia even for liquids. Ulcer on upper part of right tonsil the size of a franc; tonsil indurated. Behind the angle of the jaw there was a voluminous, indolent, indurated swelling of the glands. Origin not determined; patient's habits bad.

Case 34.—Helot.* Female, aged 30. Had pain in the right side of throat. A month later M. Fournier found a very characteristic chancre of right tonsil; papular syphilide appeared later. Origin: from a child who had chancre on neck.

Case 35.—Moul-Lavallée.* Female. Both tonsils were very large; left one very prominent; surface vividly red, smooth, and glazed. Lesion had lasted three weeks; had evening and nocturnal fever; left submaxillary adenopathy. Eight days later chancres became very hard to the touch, and excavated; subsequently some secondary manifestations. Origin unknown.

Case 36.—Spillman.* Female, aged 59. Right tonsil seat of a slight excavated ulcer with grayish base, surrounding mucous membrane œdematous, and formed like a cushion; right submaxillary adenopathy. A few days later roseola appeared upon the chest and abdomen. Origin: putting in mouth nipple of nursing bottle belonging to a syphilitic baby.

Case 37.—Helot.* Female, aged 27. Pain seated on the left side; deglutition did not make it worse; left submaxillary adenopathy; left tonsil swollen and hard; ulceration on the anterior pillar size of 50-centime piece. Origin: kissing syphilitic child who had lesions at labial commissure (not a real case).

Case 38.—Hue (Pean).† Male, aged 37. Sick six weeks; dysphagia, headache, malaise, fever; ulcer size of 50-centime piece on right

---

* *Ann. de Dermat. et de Syph.*, 1888.

† *Pittsburgh Medical Review*, 1893.

‡ *Arch. Gén. de Médecine*, 1884.

* *Arch. Gén. de Médecine*, January, 1884.

† *La France Médicale*, May 31st, 1883.

tonsil, spreading onto tongue about one-half centimeter; tonsil enlarged and indurated; headache worse at night; right submaxillary adenopathy. Improved by specific treatment. Origin not given. Diagnosis uncertain between primary and tertiary syphilis; settled by patient returning later with secondary lesions.

Case 39.—Szadek.* Male, aged 32. A deep ulcer with grayish, pultaceous secretion seated on right tonsil; enormous submaxillary adenitis. Six weeks later secondary symptoms.

Case 40.—Szadek.* Male, aged 40. Right tonsil enlarged, indurated, and ulcerated; adenopathy of submaxillary, post-auricular, cervical and axillary glands. Syphilides and other secondary symptoms two months after trouble in throat began.

Case 41.—Szadek.* Male, aged 40. Right tonsil swollen and ulcerated; ulcer had a sphacelated aspect; surrounding tissues of woody consistency; enormous submaxillary adenitis. Later there appeared a macular syphilide and general adenopathy.

Case 42.—Szadek.* Male, aged 25. Deep ulcer of the right tonsil; submaxillary glands enlarged. Month later papular syphilide.

Case 43.—P. De Molènes.† Male, aged 25. Sore throat with marked dysphagia for fifteen days, which was not relieved by gargles. Right tonsil found swollen to nearly double the size; an ulcer size of 20 centimes occupied the inner face of tonsil. The ulcer was not very deep, but anfractuous, purplish-red in places and covered at others with an adherent grayish exudation; borders of ulcer clean and regular; tonsil, corresponding pillar, and neighboring tissues red, swollen, and of woody hardness to the touch. Behind angle of jaw was an enlarged gland the size of a pigeon's egg. Later syphilides and mucous patches appeared.

Case 44.—Chappell.‡ Male, aged 32. Seven weeks previous to examination had pain and soreness of left tonsil; was treated for tonsillitis; had a great deal of pain, and temperature rose to 101°; left tonsil enlarged and hard; ulcers on upper end of tonsil and soft palate; grayish sticky fluid adherent to surface; left submaxillary adenopathy. Later, macular syphilide. Improvement under antisyphilitic treatment. Origin: woman putting her tongue in mouth while kissing.

Case 45.—Chappell.* Male. Chancres on both tonsils yielding to antisyphilitic treatment. At first supposed to be late manifestation of syphilis.

Case 46.—Bulkley.† Male, aged 11. In July right tonsil was swollen; by August there was enlargement of the glands beneath the jaw; tonsil was superficially ulcerated. Later there was general adenopathy and mucous patches. Cured under specific treatment. Origin: by inoculation from syphilitic father.

Case 47.—Bulkley.† Female, aged 19. Tonsils red, swollen and eroded, right one of cartilaginous hardness; submaxillary glands enlarged on both sides, those on the right the larger; macular eruption. Cured under specific treatment.

Case 48.—Bulkley.† Male, aged 19. There was large general swelling of right side of neck; right tonsil protruded fully half across the pharynx, having at the lower margin an eroded surface; it was hard to the touch and hardness increased; right submaxillary enormously swollen. Origin: bestial practices.

Case 49.—Bulkley.† Female, aged 21. First symptom was stinging pain on left side and swelling beneath left jaw; this was followed by secondary and severe tertiary symptoms. Origin: from kissing fiancé, who had mucous patches of the mouth.

Case 50.—Bulkley.† Male, aged 22. Throat very sore two weeks after exposure; both tonsils swollen and covered with a white deposit; enlarged gland in neck; malaise. Was treated for diphtheria. Subsequently there was general adenopathy, secondary and tertiary symptoms. Origin, unnatural practices.

Case 51.—Bulkley.† Male, aged 22. Left tonsil enlarged, very red and decidedly hard; had on it an ulcer half an inch in diameter, with sharply defined edges; glands beneath the jaw greatly enlarged; general adenopathy; maculo-papular eruption. Origin: unnatural practices.

Case 52.—Bulkley.† Male, aged 23. There was dysphagia and swelling of glands of neck; left tonsil, which blocked up half the fauces, was of a livid color, very hard, and superficially ulcerated. Later, secondary symptoms appeared.

---

* *St. Louis Medical and Surgical Journal*, January, 1891.

† *Ann. de Dermat. et de Syph.*, 1891.

‡ *N. Y. Medical Record*, January, 1894.

* *N. Y. Medical Record*, January, 1894.

† "Syphilis Insontium," 1894.

Case 53. — Bulkley.* Female, aged 27. Right tonsil swollen and hard to the touch; on lower portion was an ulcer with an excavated area; could only swallow liquid food; glands under right jaw were greatly enlarged. There was some general adenopathy, and papular syphilide.

Case 54. — Bulkley.* Male, aged 28. Throat very sore; malaise for several weeks; general macular eruption; large swelling beneath left jaw; great adenopathy of left side. Both tonsils were involved; when seen the left was much swollen, the right showed line of hardness and remains of excavated ulcer. Origin: probably use of infected pipe or drinking vessel.

Case 55. — Bulkley.* Female, aged 32. Soreness of right side of throat; corresponding glands under the jaw enlarged; whole throat and pharynx intensely red and congested, right tonsil hard to touch, and the seat of an ulcer. Secondary and marked tertiary symptoms. Origin: kissing lover, who had mucous patches in mouth.

Case 56.—Bulkley.* Male, aged 32. Had been sick six weeks when seen. Diagnosis had been tonsillitis. Right tonsil was large, projecting half way into the throat; it had a superficial ulcer, the edges of which were prominent; glands beneath the right jaw enlarged; maculo-papular eruption on body; no lesion of penis nor evidence of former venereal trouble. Yielded readily to antisyphilitic treatment.

Case 57. — Bulkley.* Female, aged 32. When seen had been sick two months, with sore throat and eruption of the face; at visit both tonsils enlarged so as to almost touch, and were equally raw; mucous patches in mouth. After treatment, left tonsil was soft and much the smaller, while the right one was prominent, with a sharply defined ulcer on it, very hard to the touch. Cervical adenopathy; secondary symptoms; no syphilitic genital lesions. Husband probably had syphilis.

Case 58. — Bulkley.* Female, aged 33. First symptom was stinging pain in right tonsil, which enlarged and became very hard to the touch; right submaxillary adenopathy; secondary symptoms; mistaken at first for a case of tonsillitis. Origin: probably from a public drinking cup.

Case 59.—Bulkley.* Female, aged 34. Had sore throat; right tonsil enlarged; no genital lesions. Origin: from kissing a cousin who probably had mucous patches.

Case 60.—Bulkley.* Male, aged 46. First a stinging sensation at right side of throat; both tonsils enlarged and superficially ulcerated, and distinctly hard to the touch; glands both sides of jaw enlarged; moderate general adenopathy; secondary eruptions. Cured by specific treatment. Not exposed sexually for ten months previous to sickness.

Case 61.—Donaldson.* Female, aged 29. Left tonsil enlarged and somewhat indurated; on it was an ulcer which was pultaceous but not deeply excavated; chancre also of upper lip; some glandular enlargement of left side of neck; followed by well marked roseola, adenopathy, falling of hair and syphilitic arthritis. Improved under specific treatment. Origin: from kissing. She was a prostitute.

Case 62.—E. H. Griffin.† Male, aged 12. Dysphagia; both submaxillary glands enlarged, right the larger; right tonsil enlarged and much congested at the lower part; in the median line was a small ulcer, very superficial; opposite tonsil slightly inflamed. Two weeks later there was typical syphilitic eruption and general adenopathy. Had headache, slight fever, night sweats, and was very much prostrated. Cured by specific treatment. Origin: from a piece of candy that had been previously sucked by another child with syphilitic lesion of the mouth.

Case 63.—E. H. Griffin.† Male, 8 years of age. Enlarged glands of neck; an ulcer with irregular edge, grayish appearance, on lower part of right tonsil. Subsequent history very conclusive. Origin: bestial practices.

Case 64.—Petersen.‡ Male, aged 35. Ulcer on right tonsil, followed by secondary lesions. Origin: from wife who had chancre on gum.

Case 65.—Bronson.§ Male, 8 years old. Tonsil was enlarged but not ulcerated; there was enlargement of the glands about angle of jaw, on the same side; no other initial lesion found; had roseola. Origin: from mother who had syphilitic lesion of lip.

Case 66. — Allen.§ Negro. Hardly any induration, but marked adenopathy of the same side; secondary syphilides; no initial lesion elsewhere.

---

*"Syphilis Insontium," 1894.

†*N. Y. Medical Record*, Oct. 1st, 1892.

‡*Monatshefte für Praktische Dermatologie*, 1888.

§*Journal Cutaneous and Genito-Urinary Diseases*, 1889.

Case 67. — Elliott.* Female, aged 20. Left tonsil enlarged and ulcerated; glands on that side of neck enlarged. Case was first diagnosed as diphtheria. Suffered severely from general symptoms, and from secondary and tertiary eruptions. Case yielded when put upon antisyphilitic treatment.

Case 68.—Zëlëneff.† Male, aged 21. Right tonsil was markedly enlarged, slightly congested, with a chancre on the inner edge of the tonsil; right submaxillary gland greatly enlarged, there being besides a general adenopathy. Typical papular and pustular syphilides appeared in due time. Origin: the disease began three weeks after living in close contact with a syphilitic family. Treated for sore throat and acne at first.

Case 69.—Jakimovitch.† Male, aged 22. Chancre occupied the whole of the left tonsil; left submaxillary gland and the glands behind the left sterno-mastoid were enlarged. Origin: probably from smoking after a syphilitic companion.

Case 70.—Gilles de la Tourette et Hudelo.† Male, aged 37. Had a chancre on tonsil which was not recognized; roseola appeared a month later; subsequently he suffered from severe nervous syphilis, *i.e.*, paralysis, incontinence of fæces, etc.

Case 71. — E. Fournié.‡ Male, aged 18. He suffered from deafness, noise in the ears, and enlarged tonsils; was treated for these troubles by catheterization of the Eustachian tube and amputation of the tonsils. Instead of improving he grew worse, having dysphagia, headache, general pains over body, and fever. On examination the nasopharyngeal cavity was found lined with a large ulcer, which subsequently extended itself to the tonsil, larynx, and tongue. Syphilitic eruptions appeared later, and the disease ran a severe course. Origin: an infected surgical instrument.

Case 72.—T. G. Roddick.§ Female, aged 42. Right submaxillary enlarged; membrane of throat swollen; right tonsil the seat of a deep ulcer with irregular edges extending downward along the pharynx, cervical adenopathy, some of the glands suppurating. Syphilides appeared later. Cured by specific treatment. Origin: from table utensils used after a syphilitic. Case was first treated as diphtheria.

Case 73. — Reynolds.* Male, aged 45. Chancre located upon the left tonsil; enlargement of glands at the angle of the jaw; followed by macular syphilide. Origin: bestial practices.

Case 74. — Hardy.† Male, aged 32. Six to eight weeks before he was seen, had sore throat and swelling of the neck; right tonsil bore a small ulcer with a gray base, surrounded by area of vivid redness; glandular enlargement at angle of jaw. Suffered from dysphagia. Four weeks from beginning of sickness syphilides and mucous patches appeared.

Case 75.—Hardy.† Male, aged 13. There was ulceration of tonsil and enlargement of the submaxillary ganglion. Later alopeciæ and syphilides developed. Origin: from eating a troche, after it had been in the mouth of another child, who was suffering from mucous patches.

Case 76.—Vidal.† Female, aged 30. Chancre on left tonsil; intumescence of sterno-mastoid, and submaxillary glands on the same side, was present. Origin: from husband, who had chancre of the tongue.

Case 77. — Rénard.† Female, aged 19. Suffered from severe sore throat; left tonsil found ulcerated, the ulcer being covered with gangrenous eschar. Later alopeciæ developed. Origin: from husband, who had secondary syphilis.

Case 78.—Rollet.† Female, aged 59. Chancre on right tonsil; right cervical adenopathy; followed by general papular syphilide. Origin: infected by a baby in the family, the child having primary and secondary lesions in mouth.

Case 79.—Rollet.† Girl, aged 12. Chancre on right tonsil; multiple right cervical adenopathy; mucous patches of mouth and anus. Origin: same as Case 78.

Case 80.—Rollet.† Female, aged 20. Chancre on right tonsil; multiple right cervical adenopathy. Origin: same as Case 78.

The facts, so far as given in the preceding histories, may be tabulated as follows:

Total number of cases, 81 — males 49, females 31, sex not given 1.

Tonsil affected: left, 27; right, 35; both, 5. Origin of lesion: bestial practices, 9 cases; kissing, etc., 8; use of infected spoon

---

* *Journal Cutaneous and Genito-Urinary Diseases*, September, 1888.

† *Journal of Laryngology*, London, July, 1891.

‡ *Gazette des Hôpitaux*, June 25th, 1863.

§ *Canada Medical and Surgical Journal*, June, 1880.

* *Philadelphia Medical Times*, March 1st, 1888.

† *Gazette des Hôpitaux*, Sept. 10th, 1878.

and utensils of like nature, 11; not given in detail, 51.

The histories of many of the latter cases showed that the patients lived in close relations with individuals known to be syphilitic, and their chancres most probably originated in kissing or in use of infected utensils.

Fever is noted as being present in only five cases.

The age of the patients: under 5, 0; from 5–10, 3; from 10–15, 5; from 15–20, 6; from 20–25, 15; from 25–30, 14; from 30–35, 14; from 35–40, 5; from 40–45, 4; from 45–50, 2; from 50–55, 2; from 55–60, 2; from 60–65, 2.

As might be supposed, it occurs at all ages, but is most common in early adult life; forty-three of all the cases occurred between the ages of twenty and thirty-five.

The following errors of diagnosis were noted: the chancre was mistaken for diphtheria and for tonsillitis, each four times; for gumma, three times; for gangrene of tonsils, epithelioma, and sore throat with acne, each once.

Chancre of the tonsil, as all other extra-genital chancres, may arise from direct or indirect infection. Cases of direct infection are mostly due to bestial practices; but may arise from imprudent services rendered to syphilitics, as in Wigglesworth's case, where mouth-to-mouth insufflation of a still-born syphilitic child was practiced.

It is beyond the limits of this paper to attempt to enumerate the methods of indirect inoculation. Any article that can be conceived of as liable to be introduced into the mouth may, under certain circumstances, become the carrier of syphilitic virus.

I wish, however, to emphasize the danger from two sources of infection. First, when studying this subject one is impressed at once by the large number of cases of syphilis for which the nursing-bottle is responsible, both in transmitting the disease from child to nurse and vice versa. This fact is one more reason for insisting upon the most scrupulous cleanliness in the care of the nursing-bottle; vigilance should be redoubled, if either nurse or child is known to be syphilitic. Also I would especially call attention to cases—fortunately not numerous—in which surgical and dental instruments have been the carriers of the virus. Surgeons and dentists cannot be too careful in having their instruments perfectly clean. I cannot imagine a more distressing accident than to give a patient under treatment for some trivial trouble such a disease as syphilis.

Mackenzie states that chancre about the fauces is usually located on the tonsil. Bulkley explains why the disease selects this site as follows:*

> Abrasions in the cavity of the mouth are rare, the secretions and the movements tending to prevent the absorption of the virus. But with the tonsils it is far different. Here the numerous crypts, often large and gaping, and frequently the seat of inflammatory disease, form a ready nidus in which the syphilitic poison lodges, and from which it is not easily removed. Moreover, the movements of deglutition aid in forcing any syphilitic matter, which may have been taken into the mouth, into the follicles of the tonsils, which approach one another and often touch in the act of swallowing.

The best description of the disease that I have met with is Bulkley's, therefore I quote him in full:†

> The first symptom, in most of my patients, has been a stinging pain in the tonsil affected, with moderate pain on swallowing. The tonsil swells rapidly and may project fully to the median line, and enlarge vertically to reach above and behind the velum palati, and below the ordinary visual line behind the tongue; rarely the enlargement is not great. The surface is always very red, but commonly the ulcer is not a striking feature; indeed, sometimes there is very little loss of substance. There is, however, always some erosion of surface, and the margin of this will be well defined and sharply cut, although seldom much elevated. The base of the sore will generally be covered with a slight whitish, sticky secretion, and does not strongly suggest ulceration. The most important means of diagnosis is palpation of the tonsil, and this should never be neglected in doubtful cases. The hardness of the tonsil is something very striking, so that patients themselves notice the "stony hardness of the organ." Epithelioma of the tonsil would simulate this, but the rarity of this, especially in early middle life, would exclude it to a great degree.
>
> As in chancre elsewhere, there is commonly swelling of the nearest lymphatic glands when the local lesion has become at all pronounced, so that we have those beneath the jaw of the affected side enlarged, almost with the first appearance of the

---

*Bulkley: *Medical Press and Circular*, London, September, 1893.

†Bulkley: *N. Y. Medical Record*, May, 1893.

chancre. In a number of cases post-cervical adenopathy of the same side has also occurred.

The occurrence of the eruption should establish the diagnosis with certainty. It is to be remembered that in certain instances the early skin symptoms are very light. I have known them to escape entirely the observation of very intelligent patients. My observation is that in throat chancres the eruption first develops about the head and face, extending slowly to trunk and extremities.

Syphilis arising from tonsillar chancre has usually run a pretty severe course. The observation has been made by others that syphilis acquired extra-genitally is apt to be very severe.

The ulcer is at times well marked and decidedly elevated above the surface of the tonsil. The induration often extends to the pillars of the fauces when the ulcer is seated on the tonsil, and to the tonsil when on the pillars. There is often considerable thick, tenacious saliva secreted, which drivels from the patient's mouth. The patient often complains of general malaise and wretchedness, but it is a characteristic feature of this disease that in spite of the apparently severe local condition, it is only in exceptional cases that fever is present. Many patients suffer no inconvenience other than the dysphagia and local discomfort.

The diagnosis is often difficult, and the real nature of the case is recognized by neither patient nor doctor. Some authors assert that cases of syphilis of undetermined origin, such as the French call "*syphilis d'emblee*," are really cases in which the initial lesion was located on the tonsil and overlooked. When a case of ulcer of the tonsil is seen, the possibility of its being a chancre is not apt to be thought of except by a specialist; besides, tonsillar chancres are usually of the flat variety, and therefore less apt to be recognized.

The diseases from which chancre of the tonsils should be differentiated are: tuberculous ulcers, mucous patches, ulcerated gumma, diphtheria, and epithelioma.

Taylor* gives these points for the diagnosis between chancre and mucous patches or ulcerated gumma of the tonsils: First, history of the case will often show the infection to be from virus introduced into the mouth: Second, swelling of the corresponding parotid and submaxillary glands, which, besides being at first unilateral, is always out of proportion to that observed in secondary or tertiary lesions and spinal implication of preauricular gland: Third, limitation of ulcer usually to affected side—in the exceptional cases where there is a chancre on each tonsil there will of course be induration of both tonsils and bilateral adenopathy of the neck: Fourth, pain and more or less difficulty in swallowing, referred to one side: Fifth, subsequent development of the later symptoms of general syphilis, with absence of chancre on other parts, especially none on the genitals: Sixth, much less intumescence of the glands in general, particularly those at a distance from the throat, which may not be affected until near the evolution of the secondary manifestations.

One of the most characteristic symptoms of chancre of the tonsil is the woody, almost stony, hardness to the touch of the affected tonsil. This symptom is so prominent that it often attracts the attention of the patient himself.

Diday gives a very good point for diagnosis between chancres and mucous patches. He cauterizes the ulcer twice, at an interval of five days; if a mucous patch, it will disappear; if chancre, it will not.

Chancre may be distinguished from diphtheria by the ulcer having lasted three or four weeks, and not having caused any febrile reaction, although the local condition is intense. The absence of fever would equally apply to the diagnosis from any acute angina, but it is not absolutely diagnostic, because fever is sometimes present in chancre. The cervical adenopathy is apt to be limited to one side in chancre, and bilateral in diphtheria. The diagnosis would be assisted if the ulcer appeared two or three weeks after suspicious exposure to syphilitic infection, or appeared during a diphtheria epidemic or shortly after a known exposure to diphtheria. In chancre, the ease of cleaning the surface of the ulcer, the pultaceous and friable consistence of the detritus, contrasts with the coherent and pseudo-membranous character of the exudate of diphtheria. Lastly, the presence or absence of the Klebs-Loeffler bacillus under the microscope would be the crucial test between the two diseases. In a late case, the appearance of the eruptions and numerous

* *Trans. N. Y. Academy of Medicine*, 1896.

patches of syphilis, in place of the post-diphtheritic paralyses, would determine the nature of the preceding angina.

If the lesion is an ulcerated gumma there will be very little adenopathy; the ulcer will be excavated deeply, with clean borders, the bottom being like a core. Erythematous redness, peripheral swelling, somewhat extended and inflammatory reaction of the neighboring parts, appear frequently in chancre, and never in ulcerated gumma. Gumma does not cause nearly so much dysphagia and salivation as chancre.

Chancre of the tonsil is sometimes mistaken for epithelioma. Both have amongst their symptoms marked induration, adenopathy and pain. The adenopathy in chancre may be very voluminous, very hard and indolent, only slightly movable, and the large mass may be surrounded by other smaller glands—the classical Pleiades of Ricord; while in epithelioma the glandular enlargement is only moderately large, but is painful to pressure. In chancre, even where functional trouble such as salivation, difficulty on opening the mouth, speaking and swallowing exist to a considerable degree, there is little pain so long as the patient does not make efforts of deglutition. The age of the patient may be of assistance in the diagnosis, for while chancre is liable to occur at all ages, epithelioma is more apt to develop after middle age. Hæmorrhage is frequent and emaciation marked in epithelioma. Chancre is curable and cancer incurable.

The ulcer of tubercle has often an uneven, pale and devitalized surface; it is granulated or covered with yellowish-gray viscid mucus; the edges are sometimes sharply cut, sometimes beveled, seldom elevated. There is little or no surrounding induration. It is usually of ovoid shape. There is generally ulceration of some of the neighboring parts. Pain on swallowing is very intense. Scrapings from the ulcer give under the microscope fine granular matter, abundance of tubercle cells, and an occasional giant corpuscle. Tubercle bacillus may or may not be present; when present, it is proof positive of the nature of the ulcer.

A very complete discussion of the differential diagnosis of chancre of the tonsils, by Delavan, from which a number of the points in the above discussion were taken, can be found in the "Reference Handbook of the Medical Sciences," vol. vii, page 148.

The prognosis of chancre of the tonsil is good, when the diagnosis is once made and antisyphilitic treatment has been instituted.

Very little will be said concerning the treatment, as it is simply specific. It should be begun as soon as the diagnosis is made. Specific treatment may be used tentatively, as a means of diagnosis, in doubtful cases. In addition, there must be local treatment, which will be determined in individual cases by the conditions present in each. Bichloride gargles, applications of nitrate of silver to the ulcer, and mercurial inunctions to the cervical adenopathy, will be suitable to most cases.

Before leaving this subject, I want to express my opinion on board of health control of syphilis, which subject is so important that all physicians should put themselves on record concerning it, in order to assist in educating public opinion. When one begins to realize the ease and frequency with which syphilis infects innocent persons, especially women and children, who in their turn become foci for other series of cases, one cannot but ask why syphilis is not as worthy of attention by boards of health as many diseases, measles for instance, of which they do take cognizance.

U. S. S. *Indiana*.

PLASTIC VAGINAL SURGERY.

BY C. P. THOMAS, M.D.

I will include under this head the operations usually performed for repair of the cervix after injury occurring at child-birth, in which no immediate operation has been done. In 1884 Thomas Addis Emmett announced his operation for the repair of the cervix, which consisted in removing freely the cicatricial plug which Nature, in her effort to cure, had formed, and in closing the wound with silver wire. He taught that this cicatricial tissue produced pressure and irritation of the terminal cervical nerve fibres, and that by its removal many of the heretofore incurable neurotic pains from which women suffer would be relieved. At first he was looked

upon as an enthusiast, and it was some time before the value of his teaching was appreciated; but once it was discovered there was merit in the work, the whole surgical world went wild over the operation, and every city and almost every village, developed men who, eager to win laurels, operated on every cervix that had been dilated by pregnancy. This indiscriminate course naturally brought about many failures, and the operation again fell into disrepute; and to-day many women are suffering who might be relieved by this simple method had not the disastrous results of the unskilled made them skeptical of its efficiency.

My method of repairing the cervix is to cut out freely all of the cicatricial tissue, then unite the edges with silkworm gut sutures fastened with Aveling's wire coil and shot, removing the stitches after the tenth day. No long course of preparatory treatment is required, for after removing the scar tissue, and curetting, if there is subinvolution the recovery will be satisfactory, involution being greatly hastened by the depleting effect of the sutures.

Other conditions the profession is called upon to treat are, cystocele and rectocele, with partial or complete laceration of the perineum, and these produce many of the symptoms so well known, namely, backache, leucorrhœa, pain under the left breast, and dragging sensations. The anterior vaginal wall also requires treatment when it will roll out and greatly curve the urethra, and can be seen best by having the patient bear down while in the dorsal recumbent position.

The operation I have found most satisfactory for the cure of cystocele is to first remove a strip the width of the prolapsed portion (consisting of the mucous membrane and submucous tissue), extending from just behind the meatus urinarius to the cervix, then unite the edges with a double row of continuous catgut, being careful in the dissecting and sewing to avoid injuring the urethra.

The posterior wall and perineum should be operated on by dissecting away the mucous and submucous tissue down to the sphincter muscles, uniting them with catgut and silkworm gut as follows: Begin the line of incision on either side of the vulva at the place marked by the remains of the hymen (or the carunculæ myrtiformes) and extend inwards until both meet at the most prominent part of the rectocele, and downward along the junction of the skin and mucous membrane until these lines of incision almost meet; then remove all the tissue included therein, being careful not to buttonhole the mucous membrane or puncture the rectum. Now by bringing together the edges of the incision with forceps it is possible to tell whether sufficient tissue has been removed. The wound should be closed by commencing at the innermost point of the incision with interrupted catgut sutures, five or six to the inch, until the entire mucous membrane is closed, which leaves the skin-wound still apart and almost round in appearance. Then place from below upwards a deep, large-sized, silkworm gut suture with a large full-curve needle passed in such a way as to bring snugly together the widely separated ends of the sphincter muscles. To facilitate removal fasten the wormgut with shot and coil.—The entire operation should be done under mild antiseptic irrigation, and thorough asepsis observed from the beginning. After all stitches are in place the parts should be dried and dusted with iodoform and boric acid, and covered with gauze and cotton, and the patient confined to bed for three weeks. A glass catheter, kept scrupulously clean, should be used for the first three days only. The external stitches can be removed at the end of two weeks; the cervical ones a week later, when the external union is strong. The combined operation is a tedious one, requiring from forty to sixty minutes, but is not attended with much shock. The extreme lithotomy position, with Clover's crutch and a self-retaining posterior retractor, greatly simplifies the *modus operandi*.

Should there be retroversion or prolapse, and the symptoms continue, laparotomy, with an abdominal fixation of the uterus according to Howard Kelly's method, will be indicated.

Spokane, Washington.

J. Adams Allen, late President of Rush Medical College, was wont to emphasize the statement that a prescription composed of more than three remedies is unprofessional.

Clinical Reports.

REPORT OF SURGICAL CASES.

BY J. M. NEEL, M.D.

Case 1.—Male, white, aged 19; first seen March 3d, 1892. On December 19th previous he received a wound from a 45-100 pistol-ball, entering from behind, penetrating the margin of the fifth rib on left side, about midway between the posterior border or base of the scapulæ and spinous processes of the dorsal vertebræ, ranging apparently upward and inward. He was suffering from all the symptoms of empyema of the left pleural cavity; temperature 103°; pulse 130, weak and thready, etc.; the fistulous opening discharged pus intermittently upon moving the body. The following day I made an incision immediately over the fistulous opening, exposing the rib, and excising about one-half inch of necrosed bone on either side of the wound; through this opening was discharged about two quarts of pus. After irrigating the cavity thoroughly with hot boric-acid solution (until it came away clear), a good-sized wick of iodoform gauze was inserted, the usual dressing applied, and a pillow ordered under the hips in order to facilitate drainage. As the patient was considerably emaciated, I prescribed suitable tonics, also potassium iodide. The wound was irrigated daily with hot boric-acid solution, and hydrogen dioxide used occasionally just before irrigating.

The patient improved rapidly until about the 1st of May, when the opening had become so small, in spite of all I could do, that the retention of pus was sufficient to cause a recurrence of the empyema. A second operation was performed, and this time one and a half inches of the sixth rib resected, at the anterior angle. The lung was found displaced, shrunken, and pushed up by the contained pus. The posterior wound was also reopened so that a probe could be passed readily from one opening to the other. On this occasion a half-gallon of pus was evacuated, after which the cavity was thoroughly irrigated. Through-and-through drainage was employed by introducing a tube through both the anterior and posterior openings. The usual dressing was applied, and daily irrigations practiced. He began to improve rapidly, and continued to do so up to the middle of June, during most of which time he was able to be up; he then gradually relapsed into about the same condition as before operation. September 3d, I advised thoracoplasty, which was refused, and I would then have retired, but for the fact that, owing to previous consecutive failures, I could readily realize ample grounds for refusal, and I therefore determined to "stay with" the case until success was obtained, if possible. I now employed an aspirator, drawing off nearly three quarts of muco-pus. The patient was kept on constitutional treatment until January 2d, 1893. Consent was then given to perform Estlander's operation, as advised on September 3d, with a view to a more extensive excision of ribs, thus permitting the chest-wall to collapse. A linear incision was made in the axillary line, extending from the fourth to the tenth rib. The periosteum having been stripped from each, I then resected two inches of the fifth and sixth and two and one-half of the seventh, eighth and ninth ribs, using an ordinary pair of bone forceps; at least two quarts of pus was evacuated. All hæmorrhage having been checked, I thoroughly curetted the pleura, removing about a saucerful of granulation and necrosed tissue; hæmorrhage was slight. Next the cavity was irrigated with hot sterilized water and, lastly, with boric-acid solution. The lower part of the wound was left open and packed with iodoform gauze, the usual dressing applied, and the wound bandaged as tightly as could be borne. The operation lasted about one hour. The patient rallied from the anæsthetic nicely; there was no vomiting, and the chest-wall collapsed and the lung expanded gradually, until now, after a lapse of two years, respiration can be heard all over the chest; there still remains, however, a small fistulous opening with a very slight discharge. Unsuccessful attempts were made to locate the ball at each operation. The patient weighs more than ever before, and has been able to do light work for the last two years. I should have mentioned in the beginning that he inherited a tuberculous diathesis; his mother died from pulmonary phthisis.

Case 2.—On August 16th, 1892, I was called to a white woman, aged 19, unmarried, who had just received a wound in the back from a 44-100 pistol-bullet. The ball had entered two inches to the right of the spinous process of the ninth dorsal vertebra, ranging upward and inward; she was conscious, but there was complete paraplegia, both motor and sensory; pulse was weak and thready; respiration hurried. I felt confident the ball had entered the spine, or, at least, fractured a vertebra to such an extent as to cause pressure. After using a probe to determine the course of the wound, a linear incision about four inches long was made in

the median line down to the spinous process. An oblique incision corresponding to the track of the ball was now made and the flap dissected down. The spinous process of the ninth dorsal vertebra was fractured near the tip, which was removed. About one-third of the ball, cut lengthwise, was found lying alongside of the laminæ, through which the balance of the missile had entered. With a mallet and chisel the opening was enlarged sufficiently to inspect the membranes, but no rupture of the dura could be discovered. The remaining two-thirds of the ball could not be found, so the operation was suspended, the wound dressed antiseptically, and ample provision made for drainage. For the first four or five days a catheter was demanded to draw off the urine, and enemas were given to move the bowels; after this she was able to urinate at will, and there was no dribbling; also the bowels moved voluntarily. Cutaneous sensation likewise was partially restored, and motor paralysis improved, so that she could move the lower limbs. Her respiration, however, did not improve; and the fifth day symptoms of hypostatic pneumonia supervened; she miscarried on the ninth day, and died on the eleventh from the pneumonia.

Case 3.—A carpenter, aged 33, white, on September 7th, 1892, fell from a scaffold twenty feet high. I diagnosed dislocation and probable fracture of the second or third lumbar vertebra and advised an operation, but this being refused I retired from the case. December 10th I was again called, and found the patient suffering from complete paraplegia, both motor and sensory, with constant dribbling of urine; the bowels were moving involuntarily and unconsciously; there were large gangrenous bed-sores on the sacrum and each heel; he was emaciated, and had some fever; there was a marked lateral deviation of the spinous processes of the lumbar region. My diagnosis and recommendations were the same as before, and being refused, I again retired from the case. I next saw the patient April 1st, 1893, when consent was given to do anything I thought best; accordingly I operated April 12th. An incision about four inches long and one inch to either side of the median line was made; then a transverse incision; the two incisions connected at the top and the flap dissected down; also an incision on the right side from about the centre of the linear incision, extended obliquely downward for about three inches, and the flap dissected, thus giving ample room. Considerable callus was found, indicating the vertebra had been fractured, and it was found to be also partially dislocated. I now chiseled through the lamina and elevated it; the flaps were then replaced and sutured, and a wick of gauze left in the lower angle of the wound for drainage. The patient rallied nicely; no vomiting. The wound was irrigated every other day. Healing by first intention took place. Cutaneous sensation was immediately restored, so that the following day a prick from a pin was distinctly felt; his appetite was regained and weight increased about twenty pounds; the temperature dropped to normal, and patient had improved in every respect with the exception of the motor paralysis, which remained permanent, permitting the constant dribbling of urine, as well as involuntary movement of the bowels. The following Autumn a urinal and invalid's chair were ordered; the latter he used to get about in, greatly to his comfort for a year or more. I did not see him again for several months, when I was again called, as he had taken to his bed. Examination showed the worst case of phlegmonous cystitis I ever saw; over the region of the bladder the tissues were œdematous and almost as hard as rock. Within a few days one of these phlegmonous points opened spontaneously, and discharged pus continuously until his death, which was caused by exhaustion and sepsis within a few days. I am of the opinion that improvement would have followed an early operation.

Case 4.—I was called to see a colored man, aged 22, at 6 P.M., Wednesday, September 5th, 1893. The previous Sunday, while at stool, he felt something give way in the lower abdomen on the right side, which was accompanied with a sharp, lancinating pain. He was treated for colic, but anodynes, salts, oil, etc., failing to give any relief, or to effect a movement of the bowels, I was called, finding the patient *in extremis*. Examination revealed a large tumor immediately below the right external abdominal ring with all the symptoms of strangulated hernia. An oblique incision about four inches long, extending from above Poupart's ligament down to the scrotum, was made. No time was taken to dissect each layer, but with a groove director as a guide I continued to cut until the sac was open, which brought to view a mass of gangrenous omentum, that was ligated and removed. The intestines looked very dark, but not so much so as the omentum. I now enlarged the opening and relieved the strangulation, pushing the intestines back into the abdomen.

The patient being in a very bad condition, I did not dissect out the sac, which would have required considerable time, as

all the tissues were strangely adherent and discolored. His bowels now moved freely. The spermatic cord with its concomitant nerves, arteries and veins was left in normal position. Several retention sutures were introduced one inch from the margin of the wound; buried catgut sutures were inserted and included the peritoneum and transversalis muscles immediately anterior to the spermatic cord, bringing the tissues into close approximation down to the full extent of the wound, thus leaving the cord in a closed tunnel; other sutures were placed to bring together the remaining tissues, including the skin, and tied. The retention sutures were brought together and a small wick of iodoform gauze inserted at the lower angle of the wound and a T-bandage applied. Not having hot sterilized water at hand, water drawn from the well with bichloride added was used to cleanse the parts; my pans and instruments had been boiled some time during the day—these were the only antiseptic precautions that were taken. Of course, I had little hope of success under such circumstances. However, the patient's temperature remained elevated for two days, then dropped to normal; the wound healed by first intention, being dressed daily; pus escaped only from a few stitch-hole abscesses. The result was as successful as one could expect.

Case 5.—I was called July 26th, 1894, to see a lad aged nine years who had been confined to his bed for fifteen days with what was supposed to be typhoid fever. There was persistent retention of urine, and attempts to introduce a catheter were unsuccessful. There was a general distention of the abdomen with marked tenderness, especially beneath McBurney's point on the right side; temperature was 102.5°, pulse 136. A diagnosis of appendicitis was made. I at once sent for instruments, but as the patient was suffering a great deal from the distention, an aspirating needle was introduced immediately above the symphysis pubis and about a pint of fluid sero-pus drawn off. As soon as the instruments arrived an oblique incision three inches long was made immediately over McBurney's point down to the peritoneum, which was then caught up between two dissecting forceps and divided. About one pint of pus was then evacuated. Everything was adherent; the intestines red and angry; the bladder pushed down by the accumulation, which accounted for the fact that the aspirating needle failed to enter, and instead of there being retention as supposed, there was *partial suppression* of urine!

The abscess cavity was thoroughly irrigated and made aseptic; a large drain of iodoform gauze inserted to the bottom of the cavity; and a dressing applied. Daily irrigations were subsequently practiced. The bowels were moved the following day by an enema; on the second day fæcal matter was noticed on the gauze drain, showing that the sloughing had caused a fistula which remained open, discharging the contents of bowel until the death of the patient, which occurred on the fifth day following the operation, from exhaustion. There were no symptoms of peritonitis.

A point I wish to bring out in this case is the resemblance to typhoid fever. I have operated several times for appendicitis, and this is the only fatal case that I have had; but in all other cases early operation was the rule. I now have under care a patient who has passed through two mild attacks of appendicitis which were treated successfully, for a time at least, by absolute quiet with high enemata, using warm olive oil in conjunction with hot water, also salines, morphine, etc. Several months have elapsed since the last attack. I would advise conservative treatment in all cases. The time for operation should be decided by the attending surgeon.

Case 6.—On June 24th I was called to a colored male, aged 30, suffering from urethral stricture and retention of urine; the patient had been confined to bed for several days and was in great agony. Several physicians had been in attendance at different times, and one of them diagnosed a strangulated hernia, and advised operation, which was consented to. The physician now in attendance diagnosed retention of urine, and failing to introduce a catheter, aspirated the bladder twice within forty-four hours. The abdomen was greatly distended, the skin œdematous, covering a large tumor as hard as an Irish potato, with an oblique and gaping incision extending for about three inches across Poupart's ligament just through the skin and subcutaneous fat—this was the result of the operation for strangulated hernia. I tried to introduce a metal catheter, but failed; then decided to open the bladder supra-pubically—selecting this method for the reason that if after relieving the viscus there should be a tumor remaining I could easily extend the operation. I first aspirated the bladder, drawing off quite a quantity of urine, leaving sufficient to guide in my work. I cut down through the tissue imme-

diately above the pubis in the median line to the bladder; after inserting two retention sutures, by which the bladder was elevated, it was opened. A rubber catheter was then inserted through the urethra by the retrograde method, which was accomplished with ease: this, by the way, was original with me at the time, though I have since seen it recommended. Nothing further being found, a large glass drainage tube was inserted through the abdominal opening and the incision sutured around it, including the external coats of the bladder, and a dressing applied. This was hurriedly done, as we were thirty-five miles from town, and were compelled to go home that night. I subsequently heard the patient was doing very well; catheter had been removed within a few days and urine passed through the urethra.

July 14th the same patient was brought to my office complaining of retention. The abdominal opening had closed, and failing to introduce a metal catheter, I broke up the granulation tissue which occluded the opening, and reestablished drainage. He remained for several days, and efforts were made to introduce a sound, which were at times successful. We tried various sizes of sounds. The first entrance that was made, however, was with a No. 24 French, which could be passed with ease; the day following it was impossible to introduce it. Again the next day perhaps it could be inserted with the greatest of ease. The patient gradually improved and when last seen voided his urine at pleasure, without effort. The fistula closed almost immediately and he has apparently been enjoying good health ever since.

Banham, Texas.

ANCIENT PAIR OF SCALES.

A pair of scales much like those of the modern pharmacist is among the multitude of objects discovered this year in excavations about thirty miles from Thebes, and recently exhibited in London. They are finely finished, turn on a pin, have a beam four and a half inches long, with a ring at each end for the three cords, and the pans, about the size of an English penny, are slightly convex. Other objects of especial interest are tipcats and tops of the boys of long ago, dolls of the girls, and pots of perfumed unguent—one at least retaining traces of the original odor.—*Scientific American Supplement.*

THE MEDICAL AGE.

A SEMI-MONTHLY REVIEW OF MEDICINE.

—PUBLISHED BY—

GEO. S. DAVIS, Medical Publisher, Box 470.

All communications regarding papers, reports, etc., should be addressed to the Editor of the MEDICAL AGE, P. O. Box 470, Detroit, Mich.

Matters relating to advertising space, etc., to be addressed to the publisher, Geo. S. Davis, Box 470, Detroit, Mich.

The editor cannot engage to return rejected manuscripts or to correspond with the writers thereof, unless such are accompanied by sufficient postage.

DETROIT, MICH., FEBRUARY 10th, 1897.

Editorial.

THE PLAGUE IN THE EAST.

More than a year ago the advent of "the plague" was announced in China, but after a very brief period it seemed to have practically disappeared, and that, too, without having left any very astonishingly fatal results in its trail. It since has been steadily moving westward, however, and appears to have been somewhat more virulent in the Eastern Archipelago, though just what rate of mortality obtained between the China Sea and the Bay of Bengal is purely a matter of conjecture. Subsequently it swept across the Peninsula of Hindustan, to reach its present culmination in the city of Bombay. More recently it was claimed to have made its appearance both in Cairo, Egypt, and Marseilles, France, but this, if not entirely problematical, is at least open to some suspicion.

It is in the Bombay Presidency that the usual results of a virulent epidemic have been reached, but unfortunately the news from the metropolis of the plague-stricken district is unaccountably vague — remarkably so, considering the fact that Bombay is one of the largest municipalities in India, and as easy of access and as thoroughly in touch with the rest of the world as any city of Europe. It has been stated that the ravages of the plague here have been greatly exaggerated, yet we have also been told that the weekly rate of mortality in the city itself has risen as high as two hundred per thousand, while some are found who insist even this does not represent half the death-rate.

The latter claim is clearly absurd, if taken

in the ordinary sense, and becomes still more so when from the same source the information is obtained that the number of deaths up to December 31st was 1725; that the number of fatalities in this month alone reached the phenomenal figure of 1169, or an average of 37 daily. That the mortality is increasing, we are led to believe by the latest news, which affords evidence that during the first two weeks of January of the present year, the death-rate had risen to an average of sixty per day. Doubtless the proportion of deaths to the number of cases is high, for it has led to a panic, resulting in an exodus variously estimated at 100,000 to 150,000—this in a population of less than 900,000.

The situation is certainly serious enough, and those who are inclined to treat it as of little moment must go back at least 1200 years for their comparisons. It is about that number of years since a plague, to which this presents many points of resemblance, depopulated many of the fairest regions of the earth. From that dark period of the world's history it is of course impossible to glean anything like an accurate idea of the ravages of a pestilence; it is recalled, however, that in the city of Constantinople during a period of three months the death-rate ranged from 5,000 to 10,000 daily. This seems impossible, yet history informs us that many of the cities in the East were left vacant, and that in several districts of Southern Europe the harvest and vintage withered on the ground; worse than all, the terrible mortality persisted during fifty-two years, and if we may believe the historian Gibbon, the triple scourge of war, pestilence and famine, at this time and during a period of half a century, caused an appreciable decrease in the number of inhabitants of the globe.

In comparison with the "Black Death" the present visitation of the plague in India is certainly insignificant, and affords one more link in the chain of evidence that the terrible epidemics of bygone days, notably of the early history of the Christian Era, and those which ravaged Europe during the last half of the seventeenth century, by which some 70,000 persons died in the city of London alone, have in some way lost their power for evil. A notable fact is that the epidemic of Bombay obtains chiefly among the native population, and that portion thereof that are ill-fed and perpetual sufferers from filth; the whites being singularly exempt from attack. Another fact is that the portions of the city most affected are those denied the most ordinary means of sanitation, including sewerage, street cleaning, etc. The virulence of plagues in bygone days manifestly is to be accounted for by the unsanitary conditions of the comparatively primitive communities of that period, and an absolute lack of rational means of existence among the poor and peasant classes.

Withal there is manifest evidence that all epidemics have been in great measure shorn of their terrors, simply because the world is gradually leaving behind those evils which are offenses against sanitation and cleanliness.

That "cleanliness is next to godliness," is a nineteenth-century aphorism generally accepted. But it has not always been so. Delving in the history of those centuries succeeding the advent of the Saviour, we find the reverse to have been accepted, and that the Church even forbade its priests, monks, disciples and hermits to wash so much as the hands and face except once a year, just before Easter; and even then contact of the rest of the body with water was deemed a sacrilege. Filth was the evidence of saintliness, and those who have perused the works of the Fathers may remember a certain monk who laid no claims to special piety, but was conceded to be entitled to enrollment in the catalogue of Saints for the sole reason that his death was found to have been induced by extraordinary filthiness and the harboring of such myriads of body-lice as never before had been known to gather upon one individual.

Thus the evidence steadily accumulates that the salvation of the human race, as regards prophylaxis against epidemics and plagues, as well as personal maladies, rests entirely within the scope and purposes of strict sanitation.

NEWSPAPER DIETETICS.

The every-day literary cook, who concocts *olla* for the average daily, seems to imagine nothing too absurd to be swallowed by the

credulous public, and he consequently does not hesitate to palm off all sorts of second-hand and silly rubbish to his readers. Nothing is sacred from his pen; he prescribes corrosive sublimate and strychnine with lavish hand and in enormous doses for the simplest ills; writes gnostically of a new flying machine he has not even seen; photographs the soul; deals out ingenious imaginary and oracular utterances from crowned heads; puffs non-existent South African herbs as general panaceas; and even in the solitude of his garret gives veracious blood-curdling scenes purporting to have taken place in the forests of middle Cuba. Now and again he is seized with a living zoölogical spasm, when he treats us to yarns about rattlesnake ranches, private minkeries, skunk nurseries, etc.; and his latest effusion of this character recently found place in the *New York Mail and Express*, wherein is described "a monkey farm" in the Everglades of Florida. On this "farm," he tells us, is being reared "a breed of monkeys whose meat, when properly dressed, is found to be most beneficial for epicures, dyspeptics, and consumptives;" but unaccountably he forgot to announce the bacilli of that fell disease epicureanism, though he, or one of his ilk, not long since was very successful in evolving the microbe of old age.

We are obliged to admit epicureanism is a very dangerous malady, and this gentleman recognizes the fact, inasmuch as he gives it preference over dyspepsia and consumption. The medical fraternity certainly should be grateful for the knowledge conveyed, and also for the fact a remedy will soon be available in the roasted flesh of a certain breed of *simians*.

The fact is, monkey flesh is not half bad when properly cooked, and served with Spartan sauce, particularly if one can put aside the fact that the creature in this guise presents a most horrible resemblance to a baked pickaninny. But just why the "meat" should cure epicureanism and benefit dyspeptics and consumptives is not explained; but as the *Mail and Express* reporter knows, this may be deemed all-sufficient.

We are astounded that this secret has not already been offered to the New York Board of Health, since that body has a most enviable reputation for seeking and exploiting new ideas, and has never yet troubled itself much with "definite explanations."

If the roast monkey can get the German hall-mark it will "go," but until the Teutonic brand pure and simple is announced we fear monkey pappoose will not be popular; then again it is rather an unheard-of sort of stuff to sample, and in these days the lack of samples is always more or less of a drawback to secure that shibboleth, "recommended by the faculty."

DEATH OF SIR SPENCER WELLS.

On Monday, February 1st, this well known surgeon and ovariotomist died at Cannes, France. He was the eldest son of the late Mr. Wells of St. Albans, Hertfords, his mother being Harriet, daughter of the late Mr. Wright, of Richmond, Surrey. He was born in 1818 at St. Albans and educated at Trinity College, Dublin. His first medical experience was in the Infirmary at Leeds, but he subsequently studied in the Anatomical School at Dublin and at St. Thomas' Hospital, London. In 1841 he became a member of the Royal College of Surgeons, and three years later was elected one of the Honorary Fellows. Having become an assistant surgeon in the Royal Navy he saw considerable active service both afloat and ashore, before and during the Crimean war; and in 1854–55 he was connected with the auxiliary hospitals at Smyrna, Renkoioi, and elsewhere in the Turkish Levant.

At the close of the Russian-Turkish war he returned to England and revived the operation with which his name has been chiefly associated, and ultimately became surgeon to the Samaritan Hospital for Women. In April, 1883, in acknowledgment for "distinguished services rendered to the medical profession and to humanity," Her Majesty conferred upon him the honor of a baronetcy.

It may be safely said that no man in modern times has more fully scaled the pinnacle of fame than Sir Spencer Wells, and his contributions to medicine will for many years to come be accepted as the chief authority upon those topics to which he gave most attention.

ANTAGONISM OF DISEASES.

Under the captions of the character "Interesting Problem Presented to the Medical World" the lay press has been going into superlative spasms over "a wonderful medical discovery and an interesting problem." The tale they tell is, that a physician in California, called upon to treat two children suffering from a febrile attack resultant upon vaccination, and who later developed diphtheria, found they recovered very quickly. In consequence, this benefactor of the human race has now discovered that "there was a clash between the two ferments in the blood, and that the virus of the vaccine vanquished the toxin of the diphtheria." He is further reported as saying:

> The thought suggested by the recent cases of mine is, the antagonism of one disease for another, like erysipelas to cancer, which is an entirely new idea as applied to diphtheria.

And all this for nothing! The antagonism of the different forms of septic poison has been known from almost time immemorial. Occasionally some half-educated person stumbles upon this old fact, imagines it is new, and immediately announces himself as a mine of medical information.

Back in the fifties, Gottschalk, of Havana, taking advantage of this theory, endeavored to treat yellow fever by means of the virus of poisonous serpents; and for a time his success was such as almost to warrant the belief he had made an important discovery. When, however, the experiments were made upon a broad scale, as they subsequently were in Vera Cruz, Mexico, and the results of one thousand successive cases summed up, it was conclusively shown that while the old theory of antagonism of various septic poisons is true, it also has its limits; it cannot be relied upon as an antidotal measure, though under exceptional conditions the affirmative may appear to be proved.

While two septic poisons are antagonistic, each modifying the action of the other, it does not necessarily follow that this activity will be in the line of cure; on the contrary, the results are often just the opposite. It not infrequently occurs that the remedy induces fatality, where no such accident could have been expected from the primary malady.

EDITORIAL NOTES.

The New Pharmaceutical Philosophy.—

The latter-day multiplication of small manufacturing drug firms, *organized purely to prey upon the medical profession*, is becoming so excessive that internecine competition will ere long see most of them laid out comfortably in the necropolis of oblivion. In the meantime the profession is compelled to submit to the horrid importunities of these firms, the only recourse at present being to put the circulars—well torn up—into the waste basket, and to kick out of the office any venturesome representative of such a concern. Not the least of the ills brought about by this state of affairs is the distrust of all manufacturing firms which must be engendered, much to the detriment of legitimate pharmaceutical houses.—*Cleveland Journal of Medicine.*

[Italics ours.—Ed.]

Discords.—

It had some grains of truth at least,
That fable of the Sybarite,
For whom, because one leaf was creased,
The rose-strewn couch had no delight.
I think not even sanguine youth
Expects its gold without alloy;
But this is still the sober truth:
A little pain can mar much joy.

'Tis pity, that one thwarting thought,
One adverse chance, one sudden fear
Or sharp regret, can turn to nought
The full content that seems so near!
But this strange life of ours abounds
With notes so subtle, they afford
A thousand discords and harsh sounds
For one harmonious, perfect chord.

—*Chambers's Journal.*

A Contagious Form of Feeble-mindedness.—

This is what an exchange just dubs the "Osteopathic" quack fad that has struck the States of Missouri, Illinois and Iowa, and that promises to relieve all the ills of humanity, from toothache and rheumatism to locomotor ataxia and paretic dementia, "*by manipulation of the bones!*" One operator, upon a paretic, claimed to have "replaced a bone at the base of the skull" that subsequently again "fetched loose from its moorings."

A New Illuminant.—

A French chemist announces a new cleanly, transparent and odorless candle. He dissolves twenty parts of glycerin in five of water, adds twenty-five parts of glycerin, and in the clear solution mixes two parts of tannin previously dissolved by the aid of heat in ten of glycerin; the mixture is next boiled until all turbidity has vanished, the water driven off, and the material shaped by means of ordinary moulds.

Decease of Doctor Goss.—

We regret to hear of the death of Doctor I. J. M. Goss at his home in Marietta, Georgia. Though an Eclectic, few men have done so much to enlighten the profession as to indigenous vegetable materia medica, and the application of the same in rational therapeutics. He was a broad and liberal-minded gentleman, and as such highly respected by all true physicians, regardless of personal bias as to *pathy* or *ism*.

Did You Ever—

Read the denunciation of a medical fraud in a religious newspaper? queries *Meyer's Druggist*.

Well, they are not so frequent as to be startling. "*These ads are always taken on honor*" (!), was the claim of the editor of a great Chicago religious weekly, who posed as a "gun" in his denomination.

To Render Fabrics Incombustible.—

Twenty grammes of borax and twenty-five of zinc sulphate are each dissolved in 150 grammes of water, and the two solutions mixed, after which one litre each of ammonia and phosphoric acid are added. In the resulting solution the paper, or other fabric, desired to be made "fire-proof," is steeped until thoroughly saturated.

Torticollis.—

Gillette, in *Pediatrics*, reports three cases of torticollis, due to adenoid vegetations and chronic hypertrophy of the tonsils. He asserts removal of the local trouble effectively relieved one case and greatly benefited the others.

Surely skepticism may be pardoned, if this is all the tale.

Items and News.

Pat's Criticism.—

There's a story that's old,
But good if twice told,
Of a doctor of limited skill,
Who cured beast and man
On a "new-fangled" plan,
With the help of a strangely made pill.

On his portal of pine
Hung an elegant sign
Depicting a beautiful rill,
And a lake where a sprite,
With apparent delight,
Was sporting in sweet *deshabille*.

Pat McCarty, one day,
As he sauntered that way,
Stood and gazed at that portal of pine,
When the doctor with pride
Stepped up to his side,
Saying, "Pat, how's that for a sign?"

"There's wan thing," says Pat,
"Ye've left out o' that,
Which, be jabers, is quite a mistake;
It's trim and it's nate,
But to make it complate
You should have a foine burd on the lake."

"Ah! Indeed? Pray, then, tell,
To make it look well
What bird do you think it may lack?"
Says Pat, "Of the same,
I've forgotten the name,
But the song that he sang is 'Quack, quack!'"

—*Medical Times.*

"Cosmetics" of Castration.—

The æsthetically inclined editor of the *Medical Record* suggested some time ago that the unsightly void left by orcheotomy should be filled by a celluloid testicle, for "cosmetic reasons." This suggestion (from a recent report of a discussion before the Chicago Medico-Legal Society) would seem to have fallen on fruitful soil. Discussing the question of castration of criminals, Doctor Gertrude G. Wellington remarked that a man castrated for disease wished something to take the place of the organ removed that would give him the semblance of manhood. The only thing that could be found was some balls of celluloid, but they each contained a little bell. She would advise that in habitual criminals and sexual perverts after castration, these celluloid balls with their jingling bells be inserted so that as the man went about among women of the world the bells would proclaim him incapacitated.—*Medical Standard.*

Beaten Gold.—

One dollar's worth of ordinary commercial gold leaf, it is said, is sufficient to cover an

area of nine hundred square inches; in other words, nine hundred square inches of gold have been pounded or beaten out of a lump of yellow metal which weighed no more than a gold dollar. This gold leaf, thin as it is, is thick when compared with that which is now being made by a recently discovered process. By the latter the yellow metal is deposited through electricity in a bath upon a highly polished sheet of copper; in this manner a film only one four-millionth of an inch in thickness may be produced. When mounted on glass this new kind of gold leaf is perfectly transparent.

Apt Repartee.—

A certain doctor had occasion, when only a beginner in the medical profession, to attend a trial as a witness. Counsel, in cross-examining the young M.D., made several sarcastic remarks, doubting the ability of so young a man to understand his business. "Do you know the symptoms of concussion of the brain?" asked the learned counsel. "I do," replied the doctor. "Well," continued the attorney, "suppose my learned friend, Mr. Bagwig, and myself were to bang our heads together, should we get concussion of the brain?" "Your learned friend, Mr. Bagwig, might," said the doctor quietly.—*Argonaut.*

Correct!—

"Doctor," said the patient, "I believe there is something wrong with my stomach." —"Not a bit," replied the doctor, promptly. "God made your stomach, and he knows how to make them. There's something wrong with the stuff you put in it, may be, and something wrong in the way you stuff it in and stamp it down, but your stomach is all right." And immediately the patient discharged him.—*Atlanta Medical and Surgical Journal.*

Well, Rather!—

Nurse: "Here's the new baby, sir. I thought you would like to see it. Isn't it awfully cunning and sweet?"

Fond papa: "Beautiful! Lovely! It's a peach!"

Nurse: "Yes, sir; aren't you glad it isn't a pear?"

Antidote to Strychnine.—

Masmeci recommends the stomach, in strychnine poisoning, should be washed out with a decoction of *Eucalyptus globulus*, which he claims has a true antidotal action in frogs. —*The Lancet.*

Book Reviews.

Prostitution in Antiquity. By Doctor Edmond Dupouy. Paper; 8vo; pp. 93. The *Cincinnati Lancet-Clinic*, Cincinnati.

This is a study in social hygiene and deals not alone with the history of prostitution, but also its connection with venereal disease. It for the first time appeared in English in the columns of the *Cincinnati Lancet-Clinic*, having been translated by Doctor Thomas C. Minor, to whom we are indebted for many classical translations from the French.

Doctor Dupouy has been very complete in his study, and his essay goes back to the earliest times. This pamphlet is not only of the greatest value to the medical man, but it is a noteworthy contribution to anthropology, and as such must attract the attention of a large number of scientists. The thanks of English-speaking physicians and anthropologists.are certainly due to Doctor Minor.

The Manual of Swedish Movements. By Doctor T. J. Hartelius. Cloth; 8vo; pp. 162. Price, $1.50. Modern Medicine Publishing Co., Battle Creek, Michigan.

This is a translation of medical Swedish gymnastics, all of which deals with the use of "Swedish movements" in various forms of chronic disease. This we believe is the first English publication which can in any sense be termed authentic. The translation has been made by Doctor A. B. Olsen, and further has the advantage of having been edited by Doctor J. H. Kellogg, who enjoyed a personal acquaintance with, and study under, Doctor Hartelius. The work was also, after translation, carefully revised by Doctor Hartelius, and hence may be supposed correct in all details. It is very copiously illustrated, which adds materially to its value.

Twentieth Century Practice. Edited by Thos. L. Steadman, M.D. Vol. x; cloth; 8vo; pp. 859. Price, $5.00. Wm. Wood & Co., New York.

This volume is devoted wholly to diseases of the nervous system, the principal captions being: "Diseases of the Brain;" "Intracranial Hæmorrhage"—Embolism, Thrombosis, etc.; "Tumors of the Brain;" "Diseases of the Meninges;" "Hysteria;" "Epilepsy;" "Spasmodic Neuroses;" "Neurasthenia;" "Disorders of Speech." There is also a very comprehensive Index. The contributors to this volume are Doctors Sanger Brown, Joseph Collins, Charles L. Dana, Charles A. Féré, H. T. Peshing, and Bernard Sachs. Owing to unforeseen delays, the issue of Volume IX of this series is postponed to April.

Cadet Life at West Point. By Lieutenant Hugh T. Reed, U. S. A. Cloth; 16mo; pp. 246. Price, $1.50. Hugh T. Reed, Chicago.

This most interesting little volume describes the daily life and experience of a youth at the United States National Military Academy in such a happy

vein as to charm readers of all ages. Withal the volume is replete in short, crisp stories, and contains statistics regarding appointments, examinations, the chances of admission, and graduation, and likewise course of study, etc. It is fully illustrated in finely executed half-tone pictures of West Point's environs.

High Altitudes for Consumptives. By A. E. Tussey, M.D. Cloth; 12mo; pp. 144. Price, $1.50. P. Blakiston, Son & Co., Philadelphia.

The scope of this work, as the author says, "has grown on the one hand out of a thorough knowledge of the needs of the general medical profession, and on the other out of a wide experience in the matter of carefully and scientifically noting and weighing those vital factors which underlie and condition all estimates of patients' resources."

Leprosy and the Charity of the Church. By Reverend L. W. Mulhane. Cloth; 16mo; pp. 153. Price, 75 cents. D. H. McBride, Chicago and New York.

This work purports to be no more than a mere compilation of facts picked up here and there, and given to the public for the express purpose of stimulating charity toward the victims of leprosy in all parts of the world. It is interesting, and the purpose commendable.

Littell's Living Age. Price, $6.00 per year. The Living Age Company, Boston.

The weekly issue of February 13th is the Monthly Supplement number, and contains ninety-six pages. Among its most striking features are "All Souls' Eve in Lower Brittany," a delightful sketch of the customs and folk-lore of the Breton peasants, translated from the French of Anatole le Braz; the first part of "The Land of Suspense," Mrs. Oliphant's latest story of the seen and unseen; a passage from Mrs. Steel's stirring story of the great mutiny, "On the Face of the Waters;" Herbert Spencer on "The Fallacies of Socialism;" a discussion of "Political Ideals and Realities in Spain," by Emilio Castelar; and a paper by W. Holman Hunt on "Religion and Art." The "Monthly Supplement," giving Readings from American Magazines, Readings from New Books, and a list of the books of the month, adds a valuable feature which the readers of *The Living Age* will be quick to appreciate; and with the translations from eminent continental authors, on prominent questions of the day, fairly doubles the value of the magazine which, even before these additions were made, was well worth the subscription price.

The Youth's Companion. Price, $1.75 per year. Perry Mason & Company, Boston.

There is probably no other publication in America so successful as this in securing the services of famous men and women. Think what a collection this is, for a single year: Ian Maclaren, Rudyard Kipling, Stephen Crane, Andrew Carnegie, Hon. Theodore Roosevelt, Dr. Lyman Abbott, Madame Lillian Nordica, Hon. Carl Schurz, Charles Dudley Warner, Mrs. Burton Harrison, Doctor Edward Everett Hale, the daughter of Longfellow, the son of Emerson, three members of President Cleveland's Cabinet, a United States Senator, the Speaker of the House of Representatives, and half a hundred other men and women equally well known! The value of such a list of writers lies in the fact that each describes or discusses the work with which he is identified — the work that has made him famous. Subscribers to the paper for 1897 receive free *The Companion's* Art Calendar for 1897, the most costly gift of its kind that it has ever offered. An Illustrated Prospectus will be sent free to those who ask for it.

The Eclectic Magazine. Price, 45 cents; $5.00 per year. E. R. Pelton, New York.

The February number contains "The Progress of Mankind," by Elisée Reclus; "The Olney Doctrine and America's New Foreign Policy," by Sidney Low; "Journalism as a Profession," by W. N. Shansfield; "The Moon-Stricken," by B. E. J. Capes; "Lord Leighton's Sketches," by Mrs. Russell Barrington; "Tyburn Tree," by F. Watt; "The Memories of St. James Square," by W. C. Sidney; "On the Selling of Books," by J. Shaylor; "Young Turkey," by Karl Blind; "Llanthony Abbey and Two of its Priors," by A. C. Benson; "A Shinto Funeral," by A. Y. Sannomiya; "Coventry Patmore," by Arthur Symons; "Sir Philip Sidney and His Friend Languet," by George Serrell; "Miss Belinda's Love-Letters," by Ellen T. Fowler; "Concerning Tea," by E. V. Lucas; "The Madness of Mercy Newdicate," by Major M. A. S. Hume. Two other notable papers are "Vander's Marget" and "Secret Societies in China."

The Midland Monthly. Price, 15 cents; $1.50 per year. Johnson Brigham, Des Moines, Iowa.

The February number opens with a paper on "Nellie Grant Sartoris and Her Children," a form of literature which we deplore, and we had hoped that the telling of private affairs of families would be confined entirely to the daily press. "John Brown and His Iowa Friends" is a readable paper by B. F. Gue, but embodies a good deal of sentiment that is decidedly out of date. Adeliza Daniels writes of "A Sojourner's Impression of Berlin;" Florence Snow of "Christina Rosetti;" Allan Eric of "Jamaica, the Land of Romance;" John W. Emerson continues "Grant's Life in the West;" J. M. Brainard describes "A Pioneer Editor's Experience." Mary A. Scott's "Across the Country in a Van" loses no interest; Marie Beynon's "Matrimonial Confidence Club" is a unique bit of literature.

The Century. Price, 35 cents; $4.00 per year. The Century Co., New York.

"Campaigning with Grant," by Horace Porter, is continued in the February issue; "Places in New York" is by Mrs. S. Van Rensselaer; "The Body to the Soul," by John V. Cheney; "Monotypes," by W. A. Coffin; "The Surprised Avowal," by Robert U. Johnson; "The Battle of Copenhagen," by Alfred T. Mahan; "An Inland Venice," by Charles de Kay; "In the Desert with the Bedouin," by R. T. Kelly; "Hugh Wynne, Free Quaker" (continued), by S. Weir Mitchell; "Miss Selina's Settlement," by Mrs. Burton Harrison; "Alcestis," by Alice W. Brotherton; "A Tropic Climb," by Julian Hawthorne; "A Man and Some Others," by Stephen Crane; "A Rose of Yesterday," by F. M. Crawford; "Billy and Hans," by W. J. Stillman. There are the usual departments.

LIPPINCOTT'S MAGAZINE. Price, 25 cents; $3.00 per year. The J. B. Lippincott Co., Philadelphia.

The complete novel in the February number is "Under the Pacific," by Clarence Herbert New; "South Florida Since the Freeze," by R. G. Robinson; "The Dignity and Humor of Signs," by Agnes C. Sage; "Old Tom of Nantucket," by Joseph A. Altsheler; "A Vanished Civilization," by Henry Granville; "Marrying in the Fifteenth Century" (II), by Emily B. Stone; "A Forestry Idyl," by M. S. Paden; "The Southern Side of the Industrial Question," by F. A. Doughty; "Gloves," by Elizabeth F. Seat; "Old Friends," by Edith Brower; "Overdoing the Past," by Charles C. Abbott. The poetry of the number is by Jean Wright, Julian Hawthorne Charles G. D. Roberts, Clarence Urmy, and Clinton Scollard.

REVIEW OF REVIEWS. Price, 25 cents; $2.50 per year. Review of Reviews Co., New York.

In the February issue Charles D. Lanier gives an interpretation of Rudyard Kipling; Dean Farrar treats of "The Significance of Browning's Message;" Mr. F. Herbert Stead writes on "Browning as the Poet of the Plain People;" "A Plea for the Protection of Useful Men" is by the late Francis A. Walker. A character sketch by Joseph J. Spencer reviews General Walker's life. The principal topics treated editorially are "The Anglo-American Arbitration Treaty," "The Cuban Situation," "The Prospects of the Nicaragua Canal," "The Recent Elections of the United States Senators in the Different States," and "The Relation of the Great Corporations to Political Campaign Funds."

ST. NICHOLAS. Price, 25 cents; $3.00 per year. The Century Co., New York.

The February issue contains: "A Siberian Scare," by George Kennan; "The Birthplace of President Lincoln," by G. H. Yenowine; "Willie and Tad Lincoln," by Julia T. Bayne; "Master Skylark" (XII–XIX), by John Bennett; "Ah Gau's New-Year's Celebration," by Theodore Wores; "The Tale of the Discontented Weathercock," by F. M. Bicknell; "The Last Three Soldiers" (VIII), by W. H. Shelton; "June's Garden" (VII–VIII), by Marion Hill; "Katie's Forest Friends," by C. S. Rice: "An Alarm of Fire by Telegraph," by C. T. Hill; "Miss Nina Barrow" (I–II), by Frances C. Baylor; "A Boy I Knew" (III), by Laurence Hutton; "The True Story of Marco Polo" (XVI), by Noah Brooks.

THE COSMOPOLITAN. Price, 10 cents; $1.00 per year. The Cosmopolitan Publishing Co., Irvington, N. Y.

The current issue opens with Frederic Remington's "Vagabonding with the 10th Horse," an account of military hardships in the Bear-Paw mountains. There are twenty pages of A. Conan Doyle's "Uncle Bernac;" W. M. Gray gives an interesting account of "The American Ostrich as Bred on the Three Ostrich Farms in the United States;" Edgar Fawcett writes of "Winter Days in Florence;" "A Fool's Paradise" is an account of the great German lottery system, by W. von Schierbrand; Myron Reed writes of "Night and Sleep and Rest;" "My Late Widow" is by C. W. Stoddard; "A Modern Fairy Tale" is concluded.

VICK'S ILLUSTRATED MONTHLY. Price, 50 cents per year. Vick's Publishing Co., Rochester, N. Y.

The contents for January embrace, among other things, an account of "The Aster Disease;" "Anemone Whirlwind;" "Setting Blackberries;" "The Cemetery as a Work of Art;" "Clematis Disease;" "Disease of Sweet Peas, Ferns and Evergreens;" "The Flowering Pea Bush;" "Government Seeds;" "Heavenly Blue Ipomoea;" "The Kerria;" "Lilies Among Shrubs;" "Care of Palms;" "Plant Insects;" "Some Roses;" "The Trees of the Country;" "Among the Wild Flowers;" "Storing Vegetables," etc.

Vick's Magazine has certainly never appeared better or has possessed greater interest than at the present day.

APPLETON'S POPULAR SCIENCE MONTHLY. Price, 50 cents; $5.00 per year. D. Appleton & Co., New York.

In the February number William H. Hudson writes of "Herbert Spencer;" "The Racial Geography of Europe" (I) is by W. Z. Ripley; "Principles of Taxation" (VI), by David A. Wells; "Indian Wampum Records," by Horatio Hale; "Some Primitive Californians," by Mary S. Barnes; "How Plants and Animals Spend the Winter," by W. S. Blatchley; "The Interpretations of Automatism," by W. R. Newbold; "Tendencies in Athletics for Women," by Sophia F. Richardson; "The Animate World a Unity," by M. A. Gaudry; "Condemnation of Criminals not Punishment," by Edward F. Brush; "Plural States of Being," by M. F. Binet.

AMERICAN KITCHEN MAGAZINE. Price, 10 cents; $1.00 per year. The Home Science Publishing Company, Boston.

The principal papers in the February issue are: "Helen Campbell," by Hester M. Poole; "Household Labor as Exercise," by Mesdames March and Smith; "Physical Culture in the Kitchen," by Edith M. Whitmore; "Housekeeping at the Hudson Bay Company's Posts," by Emma S. Colcleugh; "The Chemistry of Cooking and Cleaning," by Mesdames Richards and Elliott; "Domestic Science, etc., in Public Schools," by Edith F. McDermott; "Edible Fungi," by H. Webster; "Southern Prize Recipes," by Lucy Andrews. There are the usual departments.

SCRIBNER'S MAGAZINE. Price, 25 cents; $3.00 per year. Charles Scribner's Sons, New York.

In the February issue Jessie Lynch Williams writes of "A Great Hotel," this being his second paper on "The Conduct of Great Businesses;" "Soldiers of Fortune" (III–IV) is by Richard Harding Davis; "Forget," by Richard Hodgson; "A Woman," by William H. Shelton; "London," by C. D. Gibson; "Pial Azôn," by C. G. La Farge; "Guiseppe Segantini," by Alfred Melani; "The City Magistrates' Courts," by Robert C. Cornell; "The Last Plantagenet," by Henry Cabot Lodge; "The Miniature Portrait," by Evangeline W. Blashfield. There are the usual departments and poetry.

MCCLURE'S MAGAZINE. Price, 10 cents; $1.00 per year. The S. S. McClure Co., New York.

W. P. Trent contributes an illustrated article to the February number on "Washington as One of

the Chief Makers of the Union." An unpublished letter of Lincoln's has been unearthed, written after his defeat by Douglas in 1858, which is reproduced. Other articles are: "The Song of the Rappahannock," by Ira Seymour; "The King of Boyville" and "The Home-Coming of Colonel Hucks" are by William A. White; "The Making of the Bible," by H. J. W. Dain; S. J. FitzGerald tells the story of the writing of the well known ballad, "Robin Adair;" Rudyard Kipling writes of "The Bell Buoy," in addition to his "Captains Courageous."

OUTING. Price, 25 cents; $3.00 per year. The Outing Publishing Company, New York.

The February issue is seasonable, interesting, and superbly illustrated. "Way Beyon' de Saskatchewan" is an entertaining story by Therese Guerin Randall, which proves her to be well acquainted with the half-breeds of the North; "Sportsmen's Dogs" is by Ed. W. Sandys; "Grouse Shooting in the Snow," by R. B. Buckham; "Horn and Hound in Louisiana," by A. Wilkinson; "Under the Snow," by W. B. Cameron; and the conclusion of Sara Beaumont Kennedy's admirable story, "Redcoat and Continental," are prominent features of an excellent number.

THE CANADIAN MAGAZINE. Price, 25 cents; $2.50 per year. Ontario Publishing Co., Toronto.

The February number opens with an article on "The Premiers of Quebec Since 1867," by George Stewart; "Mining Development in British Columbia" is by C. P. Wolley; "British America's Golden Gateway to the Orient," by C. H. Mackintosh; "Gold is King," by William H. Merritt; "Sir William C. Van Horne, K.C.M.G.," by Frank Yeigh; "My Contemporaries in Fiction" (III), by David Christie Murray; "Is There a Limit to Democracy?" by J. H. Vickery; "Jack," by G. L. Drew; "Faithful," by E. Dowsley. There are the usual departments.

DONAHOE'S MAGAZINE. Price, 25 cents; $2.00 per year. Donahoe's Magazine Co., Boston.

The principal articles in the February number are: "Presidential Administrations of the Past," by T. F. Benton; "Ireland's Past and Future," by Thomas A. Emmet; "The Sacred Heart Order," by Virginia T. Peacock; "The Ballad Poetry of Ireland," by William Dollard; "The Senorita Americaña," by Mary F. Nixon; "The Cuban Outlook," by Carlos de la Isla; "People in Print," by W. Hopkins; "Restricted Immigration," by Edward O'Donnell; "Senator Hoar and the Celt." There are the usual departments.

THE DECORATOR AND FURNISHER. Price, 20 cents; $2.00 per year. The Trades Publishing and Printing Co., New York.

In the February issue "Venetian Bent Iron Work for Amateurs" is described. Other articles are on "Cleaning Wall Papers;" "A Warm Room in Winter;" "Art Matters;" "Decorative Notes;" "A Beautiful Oriental Room;" "Three Little Gems of Art;" "Dainty Spring Furnishings;" "Leaves from the Editor's Scrap-Book;" "Wood Carving for Amateurs;" "The Decorators of Twenty Years Ago;" "Mural Decoration;" "Porcelain, Pottery and Glass."

GODEY'S MAGAZINE. Price, 10 cents; $1.00 per year. The Godey Company, New York.

In the February issue Emma P. Telford writes of the "Three Sultans;" "A New Profession for Women" is by Marion F. Washburne; "The Flower of Paradox," by Martha Williams; "Elsbeth" (II), by Carrie H. Latta; "Putting Himself in Her Place," by Jane Cary; "One Woman's Power," by A. J. Crotzer; "Mr. Davis' Bear," by H. W. Phillips; "The Crank Actor," by Henry Austin; "Modes and Manners of Seventy Years" (II), by Grace E. Drew; "Dona Quixote," by Alice E. Moran.

HOME AND COUNTRY. Price, 10 cents; $1.00 per year. Monthly Illustrator Publishing Co., New York.

The current issue presents the seventh paper on "Whist and its Masters," by R. F. Foster; "England as a Field for Artists" is by Charles Turner; "The Great Treasury Robbery" (I), by R. R. Wilson; "The Old Love and the New," by F. C. Phillips; "Carita" (I–IV), by L. Pendleton; "The Old Sheriff's Story," by J. McL. French; "Between Two Covers," by C. Harley. There are the usual departments.

THE NORTH AMERICAN REVIEW. Price, 50 cents. $5.00 per year. North American Review Co., New York.

The February issue contains: "The New Epoch and the Currency;" "Woman Suffrage in England;" "Medical Experts and the Homicide;" "The Cuba of the Far East;" "The French Navy" (I); "Will the South be Solid Again?" "Speculation in Damage Claims;" "Can the United States Afford to Fight Spain?" "Conservatism of the British Democracy;" "South Africa and Its Future."

THE PHRENOLOGICAL JOURNAL. Price, 10 cents; $1.00 per year. Fowler & Wells Co., New York.

In the February number Nelson Sizer writes of "John Wanamaker;" "Two Noble Birthdays" (February 12th and 22d) is by J. A. Fowler; "Phrenotypes and Side Views," by Doctor H. S. Drayton; "Science of Health," by Captain Harrison Evans; "Convincing a Skeptic," by E. E. Youmans; "Doctor Gall's House at Tiefenbronn;" "Child Culture;" and the usual departments complete this issue.

THE AMERICAN ANTHROPOLOGIST. Price, 20 cents; $2.00 per year. The Anthropological Society, Washington, D. C.

The February number contains a most interesting paper on "Tusayan Totemic Signatures," by J. Walter Fewkes; "Tell et-Tin on Lake Homs in the Valley of the Orontes," by I. M. Casanowicz; "Scarred Skulls from Florida," by F. H. Cushing; "Horatio Hall" (obituary), by D. G. Brenton.

THE METAPHYSICAL MAGAZINE. Price, 25 cents; $2.50 per year. Metaphysical Publishing Co., New York.

The principal papers of this issue are: "Duality of Man and Nature," by C. Staniland Wake; "Intuition," by W. B. Underwood; "The Kabbala and Being," by C. J. H. Berregaard; "Analysis of Anger" (II), by A. N. Crane; "The Subjective and Objective Realms," by L. C. Graham.

Therapeutic Brevities.

What Becomes of Large Doses of Olive Oil.—The ultimate disposal of olive oil when given in the enormous quantities frequently heard of was until recently unknown to me, but is just what consideration of the circumstances would lead one to expect. That the free and available alkalies of the intestines are all seized upon after the fat-splitter, steapsin, has separated the esters into their respective radicles, is not to be doubted. Such a large amount could hardly be saponified, emulsified, or absorbed, however, excessive amounts of other classes of foods being refused by the economy. That all of it followed the conventional path is not a reasonable proposition, and a recent case enabled me to determine its fate in at least one instance. A *confrère* had a case of hepatic colic in a victim of chronic malarial disease, and gave two pints of olive oil. Subsequently his attention was directed to some peculiar masses in the vessel. He brought them to me, and I found them to be about the size of marbles, irregular shaped, translucent, of the consistence of cheese, and green in color. The history giving me the cue, I found they were glyceryl palmates colored with oxidized bilirubin. I saponified them with boiling sodium hydrate, precipitated one tube with artificially hard water, and salted out another, getting a hard soap. The gall-stone was found, and proved to be deposits of cholesterin crystals around an organic nucleus, presumably of mucus or epithelium. The denser palmates were evidently outclassed in the race by the more unstable oleates and came through unchanged. A close analysis of all the fæces on an exclusive fat diet of determined composition would be most interesting.—A. T. Mitchell, in *New York Medical Journal.*

[The concretions are the *gall-stones* that are passed after administration of olive oil, and that has led to the latter being recommended as a specific. The facts made patent by Doctor Mitchell have been given to the medical profession time and time again; still the old chestnut regarding olive oil being a remedy for gall stone refuses to down.—Ed.]

Sundew.—Drosera rotundifolia (sundew) is a favorite remedy with eclectics in doses of one-third of a drop to one drop every hour, well diluted, for a cough with dryness, explosiveness and irritation, or when the mucous membrane is dry, with little expectoration; or where cough is spasmodic, worse at night, with some sneezing and coryza, dryness of the throat and dyspnœa; here the irritation seems to be at the base of the brain, and involves the cough centre of the medulla oblongata. Drosera is a favorite and favored remedy in the cough of measles; many times if drosera is given directly after exposure and before the attack it ameliorates the cough; it may be combined or alternated with any other remedy indicated.

Drosera is also a whooping-cough remedy, but application and relief are not so general as in measles; it will, however, frequently relieve the distressing paroxysms, and at other times cut them short.

Drosera is a reliable remedy for some cases of chronic cough, especially when the cause is irritation of the cough centre at the base of the brain. It is not a remedy for gastric cough, but has some influence upon the bronchial mucous membrane, and relieves bronchial irritation, respiratory disturbances, and even the distressing cough of phthisis pulmonalis.

From this general quieting action on the nervous system, drosera is recommended in certain cases of asthma, in incipient phthisis, in chronic bronchitis, and even in some cases of flatulent dyspepsia.—*Eclectic Medical Journal.*

Veratrum Viride.—This drug slows the heart's action and renders it more feeble. Its remedial value lies in its influence on the heart, retarding the action of the latter, in acute inflammatory diseases in which the pulsation is very much accelerated. I have been able to produce the physiological effects of the drug in cases of inflammatory diseases with a dose of Norwood's tincture, not larger than three drops, every three hours, thereby reducing the pulse-beat twenty or thirty in a minute, especially when the high pulse-rate has been caused by inflammation. In inflammatory rheumatism I have had good results by keeping the pulse at or near the normal until convalescence began; in the early stages of measles, scarlet fever, and in some cases of small-pox, it acts favorably in governing the heart's action; in typhoid fever where the heart's action is irregular, this drug in drop doses appears to steady it, and for this purpose I have continued its use (in drop doses) until convalescence sets it. In all acute inflammatory diseases of the chest it is an excellent remedy, notably in acute pneumonia, pleuro-pneumonia, and pleurisy. If in acute pneumonia, in the stage of congestion, the pulse can be kept at or near the normal by this drug, it may often be jugulated or prevented from entering upon the

hepatization stage; even in a sthenic case, in the second stage, veratrum acts well, since the heart's action is lessened without loss of blood as in venesection.—BATTEN, in *Journal of the American Medical Association.*

Unexpected Effects of Bromides.—Most physicians are prone to overlook and disregard the true physiological effects of these medicaments, because they attribute the induced symptoms to the primary neurotic condition of the patient, and in the end are often surprised to find an unaccountable depression of vitality, both physical and mental, that far outweighs the evident control of the nervous symptoms that had been obtained by this treatment. I am free to admit that such was formerly my experience, having been taught the innocuousness of the bromides, until it was forcibly impressed by several cases. The bromide of potassium is the most powerful and the bromide of sodium the least toxic. Among the "commonly unsuspected effects" are increased irritability of temperament: Depression of spirits with a tendency to moderate melancholia: Impairment of memory and also of the contractility of muscles: Irritation of gastric mucous membrane: Disturbance of the circulation: Extraordinary susceptibility to toxic effects in case of cerebral lesions, etc: Tendency to homicidal and suicidal impulses.—HODGES, in *Druggists Circular.*

Treatment of Constipation.—Abstain from administering cathartics in slight transient disturbances of digestion; rather let Nature take her own course.

Never put a patient on a one-sided diet for too long a time; the exclusion of vegetables, fruits, and starchy foods in general from the diet is frequently the cause of marked constipation. A hygienic mode of living, regular habits, less business strain and worry, and more outdoor life and exercise, are of greatest importance to prevent constipation.

The treatment of habitual constipation demands a hygienic mode of living, correction of faulty diet, increased amount of vegetables, fruits, starchy food and fats (butter); also the patient should be impressed with the importance of not worrying and not bothering much about his bowels; train him to have an evacuation once a day at a certain time, either giving him no drugs whatever, or administering a very slight cathartic for a short period, then gradually diminishing and ultimately discontinuing its use.—EINHORN, in *Post-Graduate.*

Moringa Pterygosperma in Jaundice.—The root, the gum, the leaves, the flowers, and the fruit of the Indian horse-radish or drumstick tree are all useful in medicine. The root has a strong, pungent odor, and when distilled with water yields a pungent essential oil. The bark is rubefacient and domestically used as a counter-irritant in chronic rheumatism. I accidentally found that, if administered in proper doses, it was useful in jaundice, and so made several experiments with it, obtaining most satisfactory results in eight cases. I had no opportunity to observe toxic effects and it did not produce any unfavorable symptoms. In order to try its effects on the healthy system, I took on an empty stomach a drachm of the tincture in an ounce of water; it tasted something like an infusion of bitter almonds and produced a sensation of warmth at the pit of the stomach for two or three minutes, but did not produce any other effect.

The physiological action of the drug is still unknown, but I feel justified in calling the attention of the medical profession to its action in jaundice, and hope that sufficient interest will be taken to determine its true value in this disease.—DHARGALKAR, in *Indian Lancet.*

Whooping-cough.—Introduce into the back of the mouth a small tampon of cotton saturated with a 1-to-1000 solution of corrosive sublimate, and press it against the lower part of the tongue in such a way that the liquid will bathe the epiglottis and the neighboring mucous membrane. By this means thirty-five of seventy-one cases of whooping-cough were cured after from three to twelve applications, and thirteen considerably ameliorated. One of the greatest benefits derived is rapid cessation of the vomiting. The patients lend themselves very readily to the treatment and become rapidly accustomed to the introduction of the tampon. Never more than one application the same day. In a very small number of cases temporary disturbances were observed, such as hæmorrhages of the conjunctiva and of the ear, buccal ulcerations, and slight fever, but these are not serious; in fact, children tolerate mercury easily.—RABINSCHEK, in *Bulletin Médical de Paris.*

New Hæmostatic and Uterine Tonic.—Komorovitch asserts that *Erodium cicutarium* (hemlock stork's bill) exercises a powerful hæmostatic action in metrorrhagia. He tried it in twenty-three cases—in twenty the flooding was caused by metritis; in one by myoma; in one by cervical polypus; in one

by abortion. A tablespoonful of the decoction (four drachms of herb to six ounces of water) was given every two hours, and in all the symptoms quickly subsided, even in those who had been treated previously by ergot and hydrastis without success. No accessory phenomena were observed, although in some cases the administration continued for several weeks. The *Erodium* seems to exercise a direct tonic influence on the uterine muscular tissue, the organ growing distinctly firmer during the administration. In the case of cervical polypus the latter was found lying free in the vagina after two days' use of the decoction.—*Vratch.*

Beef Essence.—Take a cube of beefsteak free from fat, sear it over a charcoal or coke fire, or over an alcohol lamp that has a large flame, put it in a large lemon squeezer and squeeze out all the juice; this fluid contains five to ten per cent. albuminoids, a large quantity of the salts, to which may be added a little new sweet milk and pepsin. Prepare the milk by curdling it with a few drops of dilute hydrochloric acid, then beat the eggs with an egg-beater, and add twenty to thirty grains of pure crystal pepsin. Milk and beef-juice thus prepared make an admirable invalid food. I frequently rub the yolk of a hen's egg with half its bulk of glycerin, twenty to forty or sixty drops of which given every thirty to sixty minutes is a strong food, quickly absorbed, and one that may be mixed with milk, beef essence, or both.—Joseph Adolphus, in *Georgia Eclectic.*

Hydrastis in Chronic Gastric Pain.—A woman, aged 52, who had passed the climacteric, had suffered for years with pain in pit of stomach, extending through to back; at times everything taken was vomited; there was marked cachexia. Although no actual tumor could be felt, it was believed that the symptoms arose from cancer of pylorous. Hydrastis tincture, one drop three times a day, gave speedy relief, and the cachexia and pain quickly diminished. Discomfort was still experienced after food, so hydrastine hydrochlorate was substituted. This also kept the pain in abeyance. For the past two years these remedies have been constantly resorted to and always give relief when the pain recurs, as it does occasionally, though in mild form. —Bird, in *Monthly Review.*

Cancer.—Recently I saw a statement that the juice of the green leaves of poke-root, evaporated to a salve-like consistency, applied to an open cancer, would cure it; it is alleged that it will destroy the germs, without injuring the sound parts. The old paste of chloride of zinc will enucleate a cancer, but is painful; arsenical paste will do the same, but is also painful. I used saturated tincture (or fluid extract) of *Geranium maculatum* in one case of ulcer that was destroying the tissues very rapidly, and I presume it was soon cured, as the party did not return. Epithelioma can be cured by using mild zinc paste, then dressing the ulcer with a ten-per-cent. solution of methyl violet, or covering the ulcer with the powdered methyl violet every day, wet up in mucilage.—I. J. M. Goss, in *Georgia Eclectic.*

Scarlet Fever.—Free use of an infusion of *Triticum repens*, a wineglassful four times a day, or oftener, will prevent one of the commonest complications, nephritis. Begin as soon as the eruption is out, and even before, if it is slow in coming. It is not objectionable on account of taste, and may be given with sugar and milk. Also infusion of *Avena sativa*, given hot in cupful doses, will assist in "driving out" any of the eruptive diseases, and is likewise a sedative of considerable benefit. I make it by taking a handful of oats, first washing thoroughly, then pouring over them a quart of boiling water, covering with a towel and standing it on the back of the stove for a half hour, being careful not to let boil.—Childe, in *Medical Council.*

Sanguinaria in Ovarian Neuralgia.—A young woman, aged twenty-two, had for twelve months suffered from pain in the right side; she described the pain as constant aching, very distressing, and incapacitating her for active work, much worse at the periods and after exertion. Right ovary very tender to external pressure; there was also pain over the right hip, worse in wet weather; no tenderness or swelling. The periods recurred every two weeks, very profuse and bright, with such severe pain that she had to lie up every time. Bowels constipated. For six weeks she was given in turn belladonna and nux vomica, but was finally permanently relieved by sanguinaria. —*Hahnemannian Monthly.*

Pneumonia.—Regarding bleeding, opinions are diverse. Recently before the American Medical Association a gentleman advocated *Veratrum viride* in the treatment of acute pneumonia, and asserted he had entire confidence in this treatment, thereby keeping the

pulse at or near normal; he further asserted that all cases can be cut short by this mode of treatment. In a case in which the patient had an attack of heart failure caused by the cumulative effect of the veratrum viride, he expressed the opinion that the failure of the heart acted favorably on the course of the disease, as the turning point seemed to be established at this time.—*New York Medical Journal.*

Measles.—To avoid complications use the hot pack: Take a flannel blanket, wring it out of water as hot as the hand can bear, and wrap patient up in this with cold cloth on the head. Keep him in pack about twelve or fifteen minutes, then transfer to a dry blanket and allow him to cool gradually; this brings the eruption to the surface and relieves the mucous and serous membranes. If necessary, give antipyretics for fever and sedatives for cough. I have never had any complications with this treatment.—MERRIMAN, in *Kansas City Medical Index.*

Silver Nitrate.—This has, in the past, been used in nearly all the affections occurring in the pharynx, and is little employed at present. It was wont to be vaunted as a sedative in acute inflammations, as an escharotic in chronic hypertrophies, a sort of occult power especially exercised over the faucial region. The fact is, the drug, when properly used, is of great value in certain pharyngeal disorders and occupies a definite place in the list of local remedies applicable to this region.—*Medical and Surgical Reporter.*

Staphisagria.—I have used it for six years in night sweats and it never disappointed me. I have given it to patients bordering on consumption. Put two or three drops of the tincture in two ounces of water, and give a teaspoonful every two hours. If it makes the case worse, you may know you have the right remedy, but your dose is too large. Dilute it more, or lengthen the interval between the doses. I say two ounces because I think that will be all that will be needed.—BIBBY, in *Medical Gleaner.*

Tasteless Quinine.—Schneider recommends ripe apples to render quinine palatable and agreeable: "Put some scraped apple (preferably acid) in a tablespoon, place the quinine upon it, and cover it with another layer of scraped apple." It is stated that taken in this way quinine does not leave the slightest bitter taste in the mouth. Others have recommended to dispense quinine with cognac and orange-peel syrup, or with cognac and concentrated lemon juice.—*American Medico-Surgical Bulletin.*

Passing the Catheter.—Pick out a medium-sized Jacques catheter, pass it down until it strikes the obstruction and refuses to move another inch, and couple a large aspirating syringe, holding two or three ounces of hot water, and gently force down the fluid, at the same time rotating the catheter. The pressure of the water forms a bladder-like sac at the end of the catheter, which forces the glands back, and by the gentle rotation the catheter rides over the gland, and the trick is done.—WATERHOUSE.

Sphaletoxin.—Jacoby has succeeded in isolating the active principle of ergot in a pure state and as a yellow, beautifully crystallizable substance. Given to pregnant cats and dogs it procured abortion with certainty, without inducing severe general symptoms; it also expedited the laying of eggs in hens. He believes it exerts a specific action on the stomach. Warm-blooded animals bear large quantities of the preparation, so that no poisonous qualities are attributed to it.—*Cincinnati Lancet-Clinic.*

Rhus Aromatica.—The drug in material doses is "a sovereign remedy" for diabetes; the dose runs from ten drops to a teaspoonful of the mother tincture. Other uses are for involuntary dribbling of urine and enuresis. It has, like everything else, been also recommended for other complaints, and may be useful in them, but in diabetes, dribbling of urine, or incontinence of urine, and enuresis, it stands forth as a strongly marked remedy.—*Homœopathic Recorder.*

Acne.—Bardach concludes that the increase in the solids of the blood causes an irritation of the sebaceous glands. Quick relief is had by increasing diuresis. For local treatment he suggests a soap containing about one and a half per cent. of iodate and bromate of sodium.—*Times and Register.*

Tedious Labor and Rigid Os.—Put ten grains of tartar emetic in half a tumbler of water and give two teaspoonfuls every ten or fifteen minutes until emesis occurs. This produces free relaxation without diminution of expulsive efforts.—MUNDÉ, in *Medical Record.*

Medical Progress.

Some Surprises and Mistakes.*—I think, as a rule, that most students have in their early days a good deal of trust in the sequence of events. They are enamored by the newness of all around them in the hospitals; they have plenty of work to do, and those who do it have not time to be skeptical; they take what the books tell them so definitely, as though under no circumstances is it possible that there should be any deviation from the course of things as there described. Later on they have their faith disturbed as experience grows; but yet to the oldest of us there still remains a belief that under certain conditions certain things must happen. There is deep down in our minds the conviction "that when the brains were out, a man must die, and there an end;" but now that is upset by our experience! There, for example, is the famous case of a man through whose frontal lobes a heavy iron jumper was driven by a blast, and who recovered. I have seen a man who had lost a portion of his occipital bone, as large as the palm of my hand, and a cupful of brain substance, and yet years afterwards he did not seem to be anything the worse. It is true that these, what I may call "accidental experiments," have helped us to be less fearful of interference with the brain, but always with the exactitude which has been helped by deliberate research. Still, for the greater part, these rough tearings and bruisings of brain tissue are fatal; and even when, with our later and better knowledge, they are recovered from, they are "surprises." As our experience grows we encounter them. We see cases which, according to all rule, ought not to live. The prognosis is, a fatal result; and yet they do well, and disappoint our certainties by their recovery. And then there are those cases which die, and we do not really know why. A man gets a scratch which ought not to hurt a child, and he dies none the less surely of shock than if he had suffered some terrible crushing injury of internal organs. What are the curious conditions in the two classes of cases—the powerful vital resistance, as we call it, in the one, which is effective against forces which we regard as unconquerable; and that other class in which vitality is so low and the nervous system so sensitive that it yields at once to what is almost a pretence of injury? Just let me leave these suggestions for inquiry or speculation, and give one or two examples of many which have come under my own notice:

An old man was sent to me as suffering from appendicitis. He had had an attack, undoubtedly, but it had cleared up; the only signs remaining were a slightly raised temperature, and a thin strip of dulness extending upwards to the iliac crest. I made an opening, and found a little pus and an extensive granulation-lined cavity. I scraped it out, and drained in the usual way. All went well; but in about a week I was startled to hear that there had been a noisy discharge of flatus from the wound, and a sign of fæces on the dressings. When I saw him there was no escape of gas, but the next day I found on the dressings a fæcal concretion quite like a large nutmeg in shape and color. Of course, it had come from the intestine into the abscess cavity, and had perforated the gut-wall. But how had this great mass passed through without leaving a large fistulous track, with fæcal extravasation and perhaps worse? There was never again any sign of escape of bowel contents, either solid or gaseous, and the patient, having been delivered in this way of his concretion, got quite well without further trouble. It is, I think, plain that, although the final act of extrusion took place when the flatus escaped, the opening in the bowel did not then correspond to the actual size of the concretion. Probably the gut at one point became identified by adhesion with the surrounding inflamed area, grasping and closing slowly behind the mass as it passed through into the external cavity. The escape of flatus came from what remained of the opening just before the final closure. Whatever the process, the result was one of those "surprises" that come to us, for the passage of so large a mass through the intestinal wall and its discharge externally, without causing any permanent mischief, shows what nature may do unaided by the surgeon's skill.

In the early part of this year I saw a gentleman who was suffering from a growth in the nose. I recommended him to see Doctor Woods, and I saw him later on with Sir Thornley Stoker and Doctor Woods. We came to the conclusion that he was suffering from a malignant tumor of the antrum which had extended to the nose. We recommended an exploratory operation, and if our opinion was confirmed, that the jaw should be at once removed. He refused the larger operation. The exploration was made by Doctor Woods. We found that the tumor did extend from the antrum, into which I could bore my finger easily. Doctor O'Sullivan, Professor of Pathology in Trinity College,

*An introductory address delivered by William Thompson, F.R.C.S., at the Surgical Section of the Royal Academy of Medicine in Ireland.

declared the growth to be a round-celled sarcoma. Of that there was no doubt. The tumor returned in a couple of months, and the patient then saw Doctor Semon in London, who advised immediate removal of the jaw. He returned home, and after a further delay he asked to have the operation performed. I did this in May last, by the usual method. I found the tumor occupying the whole of the antrum. The base of the skull was everywhere infiltrated. The tumor had passed into the right nose, and perforated the septum so as to extend into the left; it adhered to the septum around the site of perforation. This was all removed, leaving a hole in the septum about the size of a florin. He went home within a fortnight. In a month the growth showed signs of return; it bulged through the incision and protruded upon the face. Doctor Woods saw him soon afterwards, as I had declared by letter that a further operation would be of no avail. The tumor had now almost closed the right eye; it was blue, tense, firm, lobulated, but it did not break. Doctor Woods reported the result of his visit to me, and we agreed as to the prognosis. Early in October the patient walked into my study after a visit to Doctor Woods. He looked in better health than I had ever seen him. The tumor had completely disappeared from the face, and I could not identify any trace of it in the mouth. He said he had no pain of any kind; he could speak well when the opening remaining after the removal of the hard palate was plugged, and he was in town to have an obturator made. He has since gone home apparently well. He told me he had applied poultices of comfrey root, and that the swelling had gradually disappeared.

Now this was a case of which none of us had any doubt at all, and our first view was confirmed by the distinguished pathologist whom I have mentioned and by our own observation at the time of the major operation.

Here, then, was another "surprise." I am as satisfied as I can be of anything that the growth was malignant and of a bad type. Of course we know in the history of some tumors that growth is delayed, and that in the sarcomata recurrence is often late. But this is a case in which the recurrence occurred twice—the second time to an extreme degree; and yet this recurrent tumor has vanished. What has produced this atrophy and disappearance? I do not know. I know nothing of the effects of comfrey root, but I do not believe that it can remove a sarcomatous tumor. Of course the time that has so far elapsed is very short; but the fact that this big recurrent growth no longer exists—that it has not ulcerated or sloughed away, but simply, with unbroken covering, disappeared—is to me one of the greatest "surprises" and puzzles that I have met with.

But let me turn to "mistakes." I confess to having made some in my life. It is often complained that we hear much of the successes of surgery and medicine, but little of the failures and hardly ever of the errors. I am not ashamed to say that I have erred in diagnosis, and I know that I have seen others blunder too. When one is in that unpleasant predicament it is satisfactory to know that he is in good company—always supposing that the patient does not suffer from his default. I am afraid that there are none who can truly claim omniscience, although they sometimes look as if they did. But so long as surgery is what it is errors will be committed; and perhaps it would help to make them less if we were only courageous enough to say so; to point out wherein we failed, and to give some warning to others which might help to save them from mistakes.

In 1892 a gentleman consulted me for a bad throat. He was seventy-five years of age, and his story was that his throat had been sore for about two months. He spoke with a marked nasal tone. I found the right soft palate and a considerable part of the hard palate occupied by a malignant-looking flattened growth projecting from the surface about an eighth of an inch. There was an ulcer on the free margin of the palate extending to the tonsil. Externally, at the angle of the jaw, was a mass of enlarged glands, fixed, and without pain. There had been a good deal of sanious discharge from the nostril, and the posterior naris was blocked by pressure of the engaged tissues. The structures over the alveolar process of the upper jaw, at the posterior part, were infiltrated and resisting. I had no doubt that it was a malignant growth, and I said so. I advised that nothing should be done save the use of a simple antiseptic lotion. Two months later I had a letter to say that a necrosis had set in in the parts, and that the whole engaged structures had sloughed away. The fœtor was described by Doctor Rutherford as so abominable that he could not stay in the room many minutes. But in the result the ragged chasm left granulated and healed, and the patient is alive to-day at the age of seventy-nine.

Now here was a "mistake," fortunately corrected by nature. I had no doubt that my diagnosis was right, but it must have been wrong. Sometimes, it is true, such endings have been noticed in the case of sarcomatous growths, but this was, I believed, an epithe-

lioma, and I have not heard of such happy endings in cases of that class. I can only say that probably others would have judged as I did, and that the evidence seemed strong enough to justify my opinion. But although the growth presented the ordinary clinical character of epithelioma, and gave evidence of secondary deposit, it is, I think, obvious that it was not of that character. The possibility of its having been a gumma, which ultimately broke down and sloughed away, is, of course, to be considered, although in this particular case I have reason for believing that there was no syphilitic history. Still I regard it as an error, and I have so scored it against myself.

When Mr. Lentaigne was house surgeon at the Richmond he called me to see a case of supposed strangulated labial hernia. The woman had been admitted the night before suffering from symptoms which had come on suddenly. She had had a lump in her groin which suddenly became larger, painful, and tense, and which was followed by vomiting and great prostration. A short examination was made. The tumor extended from the external abdominal ring into the left labium, and it was so tense that I at once ordered her to be brought to the theater, where, under an anæsthetic, I was able to make out the presence of fluid, and I felt sure that I had to deal with a strangulated hernia, with an excessive quantity of serum in the sac. Others concurred in that view. I ventured to say, however, from the general appearance of the tumor, that if the patient were a man I should call it a hydrocele. A free incision soon settled the doubt, for hydrocele fluid gushed out with great force. There was no hernia at all. The case was a hydrocele of the canal of Nück, of which I had never then seen an example, although I have seen two since. But although the case was an obscure one, and the symptoms lent color to the original diagnosis, it was a "mistake," but a mistake which has served me well since that time.

Once, with the concurrence of my colleagues, I removed what I supposed to be a testicle, and which turned out to be a hydrocele. The man had had for some time a swelling on the left side. He had often been tapped, and had been so treated immediately before I saw him. He had a large oval tumor, slightly irregular here and there; it occupied the whole of the left side of the scrotum, and was very solid and resisting. There was no normal testicle to be made out. When I had removed it I found, on section, that it was a hydrocele sac more than half an inch thick, filled with old blood-clots. The epididymis was spread out over it like a thin membrane, and could be recognized only with difficulty, and the testicle was atrophied almost beyond recognition. His comfort was added to by the operation; yet there remains the fact that we did not recognize what was the real condition of things.

I will not give details of any more cases, but I could tell of patients who have been condemned by others as having malignant disease, and who are still alive years after the pronouncement; of scirrhus of the breast, many times, which has proved to be nothing worse than a chronic abscess or an adenoma; and of abdominal tumors which, on exploration, have been declared by the most experienced and wise surgeons to be cancerous, while the patients have belied the diagnosis by living for many years in comparative health. —*Medical Press and Circular.*

THE RECTAL VALVE AN ANATOMICAL FACT. —Houston distended and hardened the rectum *in situ* with spirit. On mesial section of the subject the gut presented valve-like folds in unvarying number, and in different location in different subjects. He declared their structure to be a duplicature of mucous membrane and bundles of circular muscular fibres. Others, recognizing that in moderate distention the mucous membrane is loosely adherent in the lower rectum, insist that under the conditions employed by Houston the membrane would assume the same appearance in the upper portions as that described by him, and therefore conclude that these obstructions are accidental folds and not valves; and, as Houston did not support his statement by attributing to these valves the histological element which anatomists recognize as the essential element of a valve, the opinion of his opponents is seemingly reasonable, but is nevertheless mistaken, as the mucous membrane of the upper rectum is more closely adherent to the muscular wall than is that of the lower.

Hyrtl employed atmospheric distension after removal of the gut and observed an appreciable thickening of the wall of the rectum beneath the mucous membrane, and with apparent good reason assumed this thickening to be muscle only. Under the same manipulations a valve may be made to lose its valvular feature and seem to support this view.

Velpeau supported Nelaton's claim for the superior sphincter by removing the rectum and turning it inside out, so that its mucous membrane was external, and then by inflation demonstrated a marked constriction on the

now external surface which was distinctly claimed to be a muscular band. It is very easy to understand how that which is a true valve on the interior of the gut would become a constricting band when the rectum is thus turned.

Chadwick deserves the very highest praise for having discovered by digital exploration the lowermost of these valves, which he declared to be a detrusor fecium muscle instead of a valve. I find that these valves, when not the seat of disease, frequently elude the finger of average length or are inaccessible to it; and as the uppermost is seldom less than five inches from the anus, this means of determining their presence is not usually a very practical or satisfactory one, as was very recently proven in a case in which the lowermost of Houston's valves was malformed into a congenital annular or diaphragmatic stricture with a central aperture, which although within two inches of the anus escaped my own digital perception and that of a dozen medical men in attendance at my clinic, and was not discovered until subsequently revealed by proctoscopy.—MARTIN, in *Matthews' Medical Quarterly.*

DEGENERACY.—The latest sign is that pointed out by Heger, who appeals to young men on behalf of posterity to select women with well developed breasts for their wives; he quotes statistics to prove inability to nurse a child is a sign of degeneracy, and produces degeneracy. Among other facts he points out that in a certain district which supplies large numbers of wet nurses to the city, the percentage of men physically incapable of military service amounts to thirty per cent., while in the neighboring districts where the mothers remain at home with their families, it is only eighteen per cent. He also remarks upon the surprising number of deformed nipples encountered in the hospitals. Fehling mentions "hollow nipples" as occurring in 6.7 per cent. of his obstetric cases. Heger warns mothers not to allow the clothing to constrict the growing breasts of their daughters, and urges general hygiene as the best method to develop them.—*Journal of Surgery and Gynæcology.*

A NEW SIGN OF LATENT ANEURYSM OF AORTA.—This is the presence of a systolic sound in the brachial artery, synchronous with the cardiac systole, and sometimes accompanied by an arterial murmur. When heard, and aortic regurgitation can be excluded, a positive diagnosis of aneurysm can be made, even in the absence of all other signs or symptoms. The sound is due to rapid tension of the walls of the only partially filled artery, due to the sudden impact of blood at the heart's systole. In pure aortic regurgitation the sign is always present; in two out of six cases of aneurysm, the diagnosis was made from this sign alone, four months before the appearance of the recognized physical signs; five were intrathoracic aneurysms, and one abdominal.—GLASGOW, in *New York Medical Journal.*

VERSION IN PRONE POSITION.—The advantages are: The outlet of the pelvis is directed from above, giving the operator much more room for insertion of the hand: His hand and arm are in pronation, giving a better use of the muscles and tactile sense: The position widens and opens both vagina and uterus: The risk of bruising the soft parts is less, and the dangers of tearing the uterus from the vagina, and of air embolism, are minimized.—*Centralblatt für Gynäkologie.*

HEART IN UMBILICAL HERNIA.—Arndt reports a case of congenital umbilical hernia the size of an apple, continuous with the cord, and through the walls of which could be seen a coil of ileum, the stomach, the liver, and the pulsating heart. Cœliotomy was performed, seven hours after birth, but the heart could not be replaced in the pericardium and the babe quickly succumbed.—*Polyclinic.*

LACTIC ACID IN STOMACH.—It is utterly useless to test for lactic acid as is commonly done, after the ordinary trial meals now in use—all these contain *preformed* lactic acid. This acid is not, as was once supposed, a normal product of the first stage of digestion, neither is it ever formed *normally* in the stomach.—STEWART.

AN OXIDATION FERMENT.—M. Carnot recently reported to the Biological Society of Paris the discovery, in saliva, of a ferment which gives rise to oxidation. This ferment is found in secretions of all salivary glands, in buccal and nasal mucus, in tears, and in the product of some other glands; not in urine, bile, or intestinal juices.—*Modern Medicine.*

The Medical Age.

Vol. XV. DETROIT, FEBRUARY 25th, 1897. No. 4.

Original Articles.

SOME RECENT SUCCESSFUL CASES OF BRAIN SURGERY.

BY J. FLETCHER HORNE, M.D., F.R.C.S.E., F.R.S.E.

The following cases of trephining, which have come under my notice, are worthy of record. The first is interesting from a psychological point of view — the patient was perfectly healthy before the accident. The first result was convulsions, which pointed very strongly to an irritation in the left fissure of Rolando; then, subsidence of the fits and the development of mania, which later became suicidal. He was trephined on three separate occasions, and finally got quite well.

I venture to think the second case is probably unique—two grave injuries to the head with two symmetrical operations within six months upon the same patient, and necessitated by the same cause, viz., the kick of a horse. This case was admitted under the care of my colleague, Mr. Jeffery, to whom I am indebted for the use of his notes.

Case 1.—M. D——, aged 22; miner; was admitted to the Beckett Hospital, Barnsley, on August 8th, 1895, suffering from injury to the head and side, caused by a fall of coal in the mine.

On admission he complained chiefly of pain on the right side of the head above the ear, and there was considerable tenderness on pressure over this region; he was perfectly conscious, the eyes natural, and no paralysis could be detected. The same afternoon patient had what resembled an epileptic fit, and another during the night. No history of previous fits could be ascertained. The following day (August 9th) the patient suddenly became very violent, clenching his right hand and drawing up his legs, particularly the right one; at the same time an external squint was observed in the right eye. This attack lasted nearly four hours; ultimately chloroform was administered and the movements ceased, but returned when the chloroform was withdrawn. I now resolved to make an exploratory incision, and for this purpose he was again chloroformed. A flap of skin was raised from the left side of the head over the situation of the fissure of Rolando; no fracture, however, could be found. The wound was sutured and the patient sent back to bed.

Next day (August 10th) he was quieter; had a fairly good night, during which, however, two slight convulsive attacks took place. The temperature and pulse were practically normal. From this date until August 17th he had several slight fits, in all of which the movements were observed to begin in the right arm. On the same evening he had another violent attack, necessitating the administration of chloroform, and from this time forward he was put on small doses of chloral and bromide of potassium three times a day. He now improved slightly, having a few very slight fits, and the temperature remaining normal.

On September 4th, at 8.30 P.M., patient was seized with intense pain in the head, which he referred to two points—one just above the old operation cicatrix, the other one and a half inches behind and below this. The pain was so severe that he got into a state of frenzy with it, becoming exceedingly noisy and violent. Chloroform was given, and it was necessary to keep him slightly anæsthetized the whole night. During this attack the temperature was perfectly normal. Owing to the chloroform he slept soundly for some hours, but on awakening the pain was as bad as ever. Trephining was again decided upon, patient again anæsthetized, and a semi-circular incision made rather nearer the vertex and more posteriorly than the former one. A piece of bone the size of a shilling was removed from over the situation of the centre for the arm. Neither fracture nor depression was found. The dura mater was not opened. From this date until September 22d the patient improved considerably; he had no

return of the fits or intense pain, and was discharged on September 27th, the wound being practically healed, with the exception of a small sinus. He came up on two occasions to have his head dressed, and then was lost sight of until November 8th, when he was readmitted owing to some suppuration in connection with the wound. This soon yielded to treatment, but his conduct was so unruly that he was sent to the workhouse on November 14th, where he remained a few days, and from there went home.

Early in the year 1896 we heard that he had attempted to commit suicide. On March 21st of that year he was admitted to Wadsley Asylum, Sheffield, suffering from suicidal mania, and remained an inmate until May, when he was admitted to the Sheffield Infirmary under Doctor Sinclair White, who has been kind enough to supply the subsequent history of the case.

"It appears that he had an epileptic fit on March 25th and again on April 10th. The sequence of muscles affected was not observed. He complained of feeling seedy and unable to sleep well; had general headache; vomited every few days; vomiting apparently not connected with gastric disturbance. Intelligence fair, face pale; pulse 108, soft; patellar reflex exaggerated on both sides; muscular tremor in both hands; tongue tremulous; grip of left hand strongest (is right-handed); said he felt weak in right arm and leg. Muscular coördination fair for coarse movements, but writing unsteady. Sight failing; V, right eye $= \frac{3}{36}$, left eye $= \frac{5}{36}$. Right ear, watch heard at one inch; left ear, at half an inch. Felt dizzy before the fits, but there was no distinct aura. Two sinuses an inch apart and half an inch behind the left fissure of Rolando, and slight discharge, and great tenderness around; scalp puffy. On May 29th he was again trephined; three square inches of skull removed, but beyond thickening of the dura mater at the site of the old trephine opening, nothing was found distinctly pathological. The skull was unusually thick, but there was neither dead bone nor pus to be seen. The dura mater and arachnoid were freely opened, with the result of free discharge of cerebro-spinal fluid; but the brain tissue appeared perfectly healthy, and pulsated."

Patient was discharged from Sheffield Infirmary about the end of June and was not heard of until he turned up one evening in October in my consulting-room, apparently in perfect health, and stated that he had not again suffered from fits, pain in the head, or excitement.

Case 2.—F. T——, aged 16; miner by occupation; was admitted to the Beckett Hospital under the care of Mr. Jeffrey on the morning of October 25th, 1895, suffering from a wound over the right frontal eminence caused by a kick from a horse. He was quite conscious. Over the right frontal eminence there was a large horizontal wound about two and a half inches in length; the periosteum was divided and the bone exposed. On digital exploration the bone was found horizontally fractured in two places, the fractures running parallel to each other, half an inch apart, and the intervening portion of bone depressed one-quarter of an inch. The patient was put to bed and the wound dressed. Shortly after admission he had two distinct epileptiform convulsions, beginning on the left side and becoming general. He had a third fit during the night, and a fourth when Mr. Jeffrey saw him about eleven o'clock in the forenoon of the 25th. It was at once decided to trephine.

Chloroform was administered; an incision one and a half inches in length was made from the centre of the upper edge of the wound and at right angles to it; a piece of bone the size of a shilling was removed from just above the upper fracture, and the depressed portion easily elevated. No hæmorrhage occurred; the wound was sutured and the patient sent back to bed.

On the night of operation the patient slept soundly, had no return of the fits, and next morning his temperature was normal and he expressed himself as feeling very comfortable. He made an uninterrupted recovery, and was finally discharged on November 13th in excellent health and with the wound quite healed.

On March 17th, 1896, the same patient was again admitted to hospital, this time suffering from a wound over the left frontal eminence, caused in a similar manner, viz., a kick from a horse.

He was taken into the receiving-room, and while there had an epileptiform fit, this time affecting mainly the right side. On Mr. Jeffrey's arrival the patient was semi-comatose, and an examination being made a depressed fracture was found over the left frontal eminence, two inches in length and vertical in direction. Owing to his serious condition trephining was decided on at once, and for this purpose he was anæsthetized and removed to the operating theater. The wound was enlarged upwards and the bone carefully examined, when it was found to be irregularly fractured, the depressed portion having penetrated the dura mater and lacerated the brain. A

piece of bone equal in size to a shilling was removed from the upper and inner side of the wound and the depressed part raised; the hæmorrhage, which had been rather free, at once ceased.

The wound was well irrigated with carbolic lotion, sutured, and the patient, who bore the operation well, sent back to bed. Next morning he was quite conscious, had no return of the fits, and temperature was normal.

As on the former occasion, he made a splendid recovery, and was once more discharged on April 3d, having determined to find other fields for his energies than the coal mine.

Barnsley, England.

THE SANITATION OF MINES.

BY J. W. EXLINE, M.D.

Among the varied occupations of the industrial world, that of mining takes prominent rank. Statistical data inform us that the coal product of the globe is about 260,000,000 tons; of this vast amount, the United States produces 149,000,000. Geologists tell us that the coal-bearing strata of Colorado exceeds 44,000 square miles. Some one calculates that if our coal deposits could be spread evenly over the State of New York, it would cover every foot of the Empire State to a depth of seven feet. Colorado mines and ships to contiguous States a million tons of coal every year.

The world produces about one hundred millions of dollars in gold annually, of which sum the United States is credited with at least two-fifths. The yearly output of gold for Colorado has been placed at twelve millions of dollars, which sum was increased last year by more than six and a quarter millions of dollars. Colorado's output of gold and silver for the year 1895 was thirty millions of dollars. Since Leadville became a shipping camp it has produced a total of two hundred millions of dollars of the precious metals. The difficulties under which such vast treasures of gold, silver and coal are released from their hiding places within the earth, to say nothing of the lead, tin, copper, marble, stone, iron, clay, and other deposits, taken by physical and mechanical force from beneath the soil, must require the exercise and expenditure of a tremendous amount of vital energy; and besides, the wear and tear natural to such exercise compromise the health and endanger the lives of the thousands of our fellow men engaged therein.

Upon the morbidity of mining, as an occupation, the literature of the New World is surprisingly meagre. One searches in vain if he expects to find more than a mere allusion to the sanitary influences of mining in any one of our American works on the subject of hygiene.

In the Old World, where humanity travels at a milder pace, time is taken to consider these things, and the reports of mining bureaus are more voluminous. In the metalliferous mines of Great Britain the fatalities from accidents alone are over one thousand annually. Of every one thousand coal miners in the same country, two and fifty-seven one-hundredths meet an untimely death by accident. In the metalliferous mines of Prussia the fatalities from accident average one and fifty-nine one-hundredths for each one thousand employés. The yearly average of killed and wounded in and about the mines of Pennsylvania, during seven years' observation, is reported at one and a quarter per cent. of the men employed.

But accident is not the sole menace to the well-being of the miner; his occupation shortens life by the infirmities it engenders. The diseases to which the miner is liable, in excess of his fellows, are those which affect the mucous membranes, the fibrous tissues of the lungs, the tendonous structures of the joints, and blood changes as evidenced by anæmia. The constrained position of the miner's body induces flexures and callosities, and the absence of sunlight certain ocular defects to which few vocations contribute to the same extent. By reference to the tables furnished us by Doctor Parkes, in his work on Hygiene, we find that pulmonary troubles among miners are very much in excess of those which affect males employed at other work; and that the increase is progressively rapid with advancing years. He gives in confirmation of this statement facts compiled from data concerning the metal mines of Yorkshire, having reference, no doubt, to the county of that name. According to the figures given, the annual deaths from diseases of the lungs for each thousand work-

men, between the ages of thirty-five and forty-five years, were $11\frac{36}{100}$; while for the male population of the same ages exclusive of miners, the deaths were $3\frac{52}{100}$. Between forty-five and fifty-five years, the mortality for the mining class was $23\frac{15}{100}$; exclusive of miners, $5\frac{21}{100}$. For miners between fifty-five and sixty-five, $41\frac{47}{100}$; exclusive of miners, $7\frac{22}{100}$. For miners between sixty-five and seventy-five years, $53\frac{96}{100}$; for non-miners, $17\frac{44}{100}$. That is to say, the mortality of miners after thirty-five years of age is almost 400 per cent. greater than for the non-mining class of the same sex and the same ages.

In 1881 the male population of Yorkshire exceeded 1,400,000, and as it includes the principal mining districts of England, the observations were conducted on a large scale and ought to be conclusive. Another observer referred to by Parkes says that the three hundred thousand miners of England, as a class, break down prematurely from bronchitis and other pulmonary troubles.

Barring accidents, the principal cause of ill-health on the part of the mining class is attributable to the atmosphere in which they work. This is not strange, for the air of mines is always more or less unfit for the purposes of respiration, unless kept pure by artificial means.

Carbon dioxide and carburetted hydrogen are by-products in the long process of coal formation, and of some of the other minerals as well. These gases remain imprisoned in pockets and crevices, sometimes under great pressure, until liberated by the disturbing force of the miner's pick and blast; they are the chief and unavoidable sources of contamination and danger. There are other means of defilement also, which are not to be ignored: such as the respirations and exhalations of the workmen and animals employed, the slow oxidation of fine coal and débris, the exhaustion of oxygen by the miner's lamp, the vitiating effects of the explosives used, and especially the clouds of dust contributed to the air in the processes of mining.

The elimination of all these factors of contamination is not possible. Efficient ventilation will minimize their effects if not render them wholly innocuous; but ventilation is accompanied by many difficulties. The diffusion and dilution of gases, so rapid and energetic in the open air, is delayed and more or less hindered by the limitations a mine necessitates. These conditions obtain in any locality circumscribed by impermeable barriers to the passage of air. For these reasons, the air of mines contains a large percentage of carbon dioxide, and a relatively low proportion of oxygen.

Angus Smith found, as the mean of numerous experiments in metalliferous mines, an average of seven and eighty-five one-hundredths parts of carbon dioxide to the thousand of air; or fully four per cent. more than authors on sanitation deem admissible for continuous respiration.

It has always seemed to me that ventilation is somewhat problematical under the most favorable circumstances that may require its application; but to ventilate an opening in the ground is a task to which no one could apply himself who does not possess technical knowledge concerning the intricacies of this important subject.

Some of the perplexities relate to the breathing space, which is usually circumscribed beyond our control; the speed at which the air may be driven to furnish the requisite quantity without proving detrimental to the workmen by inducing colds, or defeating the object of the safety-lamp; for it is a matter of observation that few people can escape colds when subjected to a draft of air moving at a greater speed than three feet per second; and it is also known that the air of a mine contaminated with fire-damp to the explosive point, moving at a greater speed than eight feet per second, is capable of igniting, even in the presence of the safeguard devised by Sir Humphrey Davy. Carburetted hydrogen when present in large quantities renders air irrespirable, and is violently explosive when mixed in definite proportions. The explosive point is reached much sooner than the toxic. One must understand the peculiar properties of this gas in order to insure safety to the men who work in it. Although carburetted hydrogen is constantly present in the air of poorly ventilated mines, the quantity varies at different times and at short intervals; it is found in large or small quantities, just as the pockets and crevices in which it is stored are penetrated by the advances of the workmen. Not only is tech-

nical knowledge requisite on the part of the mine inspector, but in the interim of his visits constant watchfulness, with adequate means of ready detection, is necessary on the part of the workmen. Miners have been taught by sad experience that a low barometer means increased danger from fire-damp, owing to the low specific gravity of the gas as compared with air. For the same reason, mines located in elevated regions, as in a large portion of our State, readily experience the ill effects of the gas, since, when released by a change of environment, diffusion is facilitated by a rarefied atmosphere. Under such conditions vigilance is the price of safety.

The laws of Colorado relative to the sanitation of mines are not as comprehensive as our knowledge of hygiene demands. The minimum air-supply of one hundred cubic feet per minute, though ample for an individual under the usual conditions requiring artificial ventilation, is not enough for the average miner. Doctor Parkes has shown that a man of average size, at hard labor, needs a supply of fresh air equal to 8900 cubic feet per hour, or 2900 cubic feet more than our statutes require. It is true the Act referred to provides for an increase whenever it is deemed necessary, but the objection to the provision is that not one of the many conditions that ought to make an increase obligatory is alluded to.

In a matter of such vital importance a mere presumption of capability is not a sufficient guarantee of safety. An appointee of political preferment, in the absence of specific requirement, may or may not be faithful to the interests of the workmen.

To determine the amount of air that should be distributed to each man involves more than one thinks who has not made ventilation the subject of study. He must take into account the superficies of the floor space; the cubic contents of the enclosure; the distance to the roof; the relative purity of the air to start with; the vitiating influences to contend with; the impediments to the displacement and diffusion of the atmosphere; the number, length, size and shape of the air-shafts; the situation, size and shape of the inlets and outlets; the methods employed to remove the foul air and to supply the fresh; and other conditions peculiar to the formation and location of the mine.

Again, if a mine is worked by a lesser number of men than ten, then these men have no statutory protection. It is difficult to realize the justification for such discrimination.

The laws of Colorado are mute on the subject of explosives, except certain restrictions that apply to those substances while in transit, and the further requirement that the mines are not made a storehouse for them. Now, we all know that the handling of nitroglycerin, under whatever form or name known to commerce, is attended with extreme danger; but for anything the law has to say, the most incompetent and reckless may be entrusted with the manipulation of these powerful agents, though the lives of hundreds are imperiled thereby. The blasting preparations of nitro-compounds explode the more readily and most violently by detonation; hence concussion, however produced, may prove sufficient to entail vast destruction of property and life, especially if the explosive has undergone some measure of decomposition. In practice, certain of the fulminates are used to produce the initial explosion. The fulminate of mercury is a very unstable compound, explodes from slight friction or concussion, and requires intelligence and care in its management.

These nitroglycerin preparations freeze at 40° F. or higher; they are unsuitable for blasting purposes while thus congealed, and many are the accidents that occur during the process of thawing them. A temperature of 120°, applied as dry heat, may provoke an explosion, especially if the heat is applied rapidly. On the other hand, when heat is applied slowly in moist form, the temperature may be raised to the point of boiling water with comparative safety. The only safe way to thaw dynamite is to place the containing vessel in water of the required temperature. One of the advantages of dynamite over gunpowder is that it can be used in the presence of water; and yet when so used the dangers from it are multiplied. Moisture separates the nitroglycerin from the earth with which it is incorporated, and in that condition the explosive agent is admitted in its mobile state to the crevices that may open into the

hole drilled for the blast; thus exposing the workmen to unexpected upheavals when least prepared for them. It seems to me that the law should restrict the manipulation of these agents to those only who are acquainted with their active properties, and whose moral appreciation of responsibility to their fellows has suffered no abasement.

The mucous membranes cannot long resist with impunity the continuous impact of such angular bodies as compose the dust of mines; it is to these particles that "miner's lung" is due. Most of us have treated patients of this class, and know something of the pathology of this form of phthisis, so prevalent among coal handlers. It is an evil that cannot be wholly abated, but is susceptible of mitigation.

Nowhere in the industrial world can the science of sanitation, backed by legislative enactments to enforce its practice, do so much for a large class of bread-winners as when judiciously applied to the mining industry. Inspector Williams, of Pennsylvania, in his report of 1887, stated that in his opinion fifty per cent. of the casualties classed as accidental could be prevented. Mr. Simon is authority for the statement that in the mines of Durham and Northumberland, where special attention is paid to ventilation, the workmen suffer from pulmonary diseases only slightly more than the non-mining class.

I close this paper in the words of Mr. Shaeffer, in his article on the "Hygiene of Coal Mines," found in the supplementary volume of "Ziemssen's Encyclopœdia:"

> The hygienic condition of American mines is receiving more attention and consequent improvement year by year, and if the average miner could only be taught to exercise caution and common sense about his work, the list of fatal accidents would be materially shortened, and mining would lose most or all of the terrors which now invest it in the minds of the general public.

Denver, Colorado.

GRANULAR CONJUNCTIVITIS AND TRACHOMA NOT SYNONYMOUS.

BY ROBERT F. LEMOND, M.D.

These two very important affections of the eye, which are in nearly every case referred to as being one and the same thing, I declare to be altogether different—as much so as pneumonia and pulmonary tuberculosis—and I think any one who will follow this paper closely will agree with me. I have reference more particularly to the chronic forms, from the fact that until they are thoroughly developed, neither trachoma nor granular conjunctivitis have on their full dress so as to be readily pointed out.

Trachoma is due to a micro-organism, which differs but very little, according to Neisser, from the diplococcus of gonorrhœa, which perhaps has for its origin vaginal secretion—at least, it is so claimed by most writers on this little microbe. The disease predominates in low altitudes, and is quite common in malarial localities—I speak from experience; indeed, in these districts it sometimes prevails as an epidemic. Here we have hypertrophy of the papillæ of the conjunctiva, which extend above the conjunctival surface, and are of a dark hue showing that the circulation is very poor. I will now give a number of the positive diagnostic symptoms, which will not fail in these two affections:

TRACHOMA.	GRANULAR CONJUNCTIVITIS.
No photophobia:	Marked photophobia:
No cupping of the cartilage:	Cupping of the cartilage:
No corneal complication:	Marked corneal complication:
No destruction of the ephithelial layer of the cornea:	Often entire destruction of the epithelial layer of the cornea:
No anchylo-blepharon:	Anchylo-blepharon:
No contact between the cilia and cornea:	Cilia and cornea in contact:
Errors of refraction seldom found:	Always errors of refraction:
Destruction of the conjunctiva rare:	Total destruction of the conjunctiva:
No blepharitis marginalis:	Nearly always blepharitis marginalis:
But little secretion:	Marked increase of secretion.
Involvement of the ocular conjunctiva rarely if ever found.	Ocular conjunctiva always red and inflamed.

Now, as far as the origin of the two diseases is concerned, I claim that they are altogether different, and locality has a great deal to do with aggravating them. I find granular troubles predominate in open prairie countries, especially regions where there is much lime dust, as in the prairie districts of Colorado, New Mexico, Wyoming, Nebraska, Kansas, and western Texas.

After this disease has become thoroughly established, if the lid is everted and examined with a strong glass, it will be seen that the granulations run in perfect little straight rows; that there are little excrescences with sharp points, which actually rise above the conjunctival surface; and if this lid is cocainized so as to render manipulation unobjectionable, and an applicator passed over the lid, it will have a roughened, grating sensation—much the same as coarse sandpaper; the surface of this lid is very fiery and red.

In trachoma the surface of the lid has a dark red, velvety appearance, and the little nodulations are rounded, and not sharp as in granular conjunctivitis. Again, trachoma is found more often in children, while granular conjunctivitis usually appears in persons from twelve years of age to even fifty.

One other strong argument in favor of differentiating trachoma from granular conjunctivitis is, that sometimes from two to five children in the same family will be found all suffering with from the former, showing its predominance in being transmitted from one to another, while in granular conjunctivitis, there will be one person in a family who possibly has had it for ten years, and not another of the same family will present any traces thereof. But, understand, I do not make the declaration that granular conjunctivitis cannot be transmitted—for I believe it can, by using the same towel, and not using some care regarding the eyes; but it has no transmissible tendencies beyond this, I think. Trachoma, however, I believe will be caught by children merely associating together. I remember when in the Manhattan Eye and Ear Hospital, in New York, we sometimes would have whole families affected with trachoma, and the mothers of the children would say that as soon as they found one of the children had something wrong with its eyes, they would at once insist that it use a separate towel; but notwithstanding this precaution, the whole family would succumb to the prevailing epidemic.

So far as the ravages of these two diseases are concerned, I regard granular conjunctivitis as much more destructive, from the fact that it always carries a great deal of retinal hyperæmia with it; and where the retina has been chronically engorged for a long while, oftentimes it never does recover its visual acuity, to say nothing of the error of refraction that is always present.

So far as treatment is concerned, it varies about as much as the diagnostic characteristics. In trachoma, I always advise an operation upon the engorged lids. I prefer Noyes' forceps to any other method, usually anæsthetizing the patient with chloroform or ether, because the operation is very painful; then, after the pulpy mass has been squeezed out, I use an astringent, applied once a day after the eyelids have been cocainized; also recommend that they be treated once a day for a week or two, and then possibly three or four times a week for a short time longer. I sometimes use glycerite of tannin; sometimes a weak solution of silver nitrate, from one to five grains to the ounce; and sometimes cupric sulphate solution, from one-half grain to four grains to the ounce. I have different strengths of the glycerite of tannin—usually about four—because some will require a stronger solution than others, and *vice versa*. I think, however, that many different kinds of astringents might be used with good effect; but I merely give those that I am most partial to.

In granular conjunctivitis I rarely use Noyes' forceps on the lids, but sometimes employ mechanical abrasion with cotton (on the applicator) after the lids have been thoroughly cocainized, and get up a hypersecretion and excitation, for it is by continual absorption and excitation that cure is effected. After rubbing the lids with a cotton pledget on the applicator, I often apply a solution of silver nitrate, from five to ten grains to the ounce; if this does not work well, I soon change to something else—cupric sulphate solution, from two to eight grains to the ounce; salicylate of soda (ten to fifteen grains to the ounce), apparently a splendid stimulant.

If there is much cupping of the cartilage, this of course cannot be relieved except by surgical interference, because it is simply a question of mechanics; if the cilia drags upon the sensitive cornea, this will have to be relieved, and this I do by making an incision just back of the cilia, down through the muscular tissue to the cartilage, and if the latter is badly cupped, I slit it, making a

horizontal incision from one-eighth to three-eighths of an inch, and then take out an elliptical form of the muscular tissue extending from the inner to the external canthus; I gauge the width according to the involvement of the lid. I then bring the ends of the cut muscular tissue together and stitch them, generally using about four stitches. If this operation is properly done, it usually relieves the mechanical abrasion which helps to keep the eyeball continuously irritated. After the granular surface of the lid is healed, I correct the error of refraction, and advise the constant wearing of glasses. This will do much to prevent the return of the disease, and in my experience has worked well.

Denver, Colorado.

NEW TREATMENT OF OTALGIA TYMPANICA.*

BY DOCTOR EMANUEL MAX.

The results gained in the treatment of the neuralgias which occur in the various nerve regions are in the greater number of cases obviously satisfactory; and only a small fraction of the neuralgias—among which those belonging to the nervus trigeminus form the greatest contingent—offer insurmountable opposition, although, often enough, even the knife is powerless to abate an almost unbearably painful case, when, for example, it acts as an irremovable compression of the attacked nerve branch, or as a cerebral disease.

Even of neuralgias of the tympanic cavity (which is provided with sensitive fibres by the nervus trigeminus and glosso-pharyngeus) there are only a small number that defy the usual treatment, and it is a natural conclusion that failure is due to either a deeper or inaccessibly-seated disease—perhaps of obscure foundation, which by reflex nervous irritation induces pain—or that science has not yet formulated a measure suited to the special case. That this last assumption is not entirely unjustifiable, and that we are still far from the limit of knowledge, is evidenced by the almost yearly enrichment and extension of therapeutics, both medical and surgical.

I may here mention the latest introduced and verified methods for the treatment of otalgia tympanica as: Application of massage to the vicinity between the lower jaw and the mastoid process, by Politzer;* the tincture of eucalyptus, by Hedinger;† the amyl-nitrites and tincture of chamomile, as suggested by Urbantschitz.‡

I also ask attention to an entirely new procedure which has commended itself to me, and which proved most successful in an extremely obstinate case. The carrying out of this treatment is simple, as it consists merely of weak pushing or vibrating movements exercised upon the extremity of the short process of the hammer. The necessary instrument for the treatment is the "spring pressure-probe"§ of Lucae, or a common, thin, obtusely-bent probe fastened into the common handle, the head wrapped with a light layer of cotton, can be employed.

In cases I shall cite I used throughout the "pressure-probe," which consists of a small tube about eight centimeters long and about two millimeters in diameter (placed in the handle used for other ear instruments), in which, modified in its force by the influence of a fine, very sensitive spiral spring, a thin probe moves, and which bears on its anterior, knob-like, thickened end a little crater-shaped and well rounded depression, that adapts itself to the extremity of the processus brevis of the hammer. The drum is thoroughly illuminated by means of mirror and speculum, and the instrument, lightly held between the thumb and finger of the right hand, is passed along the upper wall of the auditory canal; and the cup-like depression is placed in apposition to the extremity of the processus brevis. Five or ten, or more, successive pushing or vibratory movements of very slight extent on the hammer, constitute the peculiar treatment.

Case 1.—Joseph S——-, 24 years of age, came to me September 10th, 1890, with a

*Translated by F. R. Reynolds, M.D.

* Mannel, Second Edition, page 426.

† Stüttgart: *Disease Bulletin* (Krankenberichte), 1887, page 46.

‡ Mannel (Lehrbuch), Third Edition, pages 348–349.

§ *Archives von Ohrenheilkunde*, band xxi, page 84.

burning pain in ear. In his fifth year he had an attack of sore throat, and recovery left a defect in hearing of left ear that increased from year to year until finally that ear was pronounced completely deaf and incurable. There was never either suppuration or pain, and attacks respectively of scarlatina and typhus in the ninth and twenty-second years exercised no apparent influence.

One evening in May, 1890, while walking, he felt a severe, sudden, penetrating pain in the right ear which lasted an hour; subsequently this often recurred, always at shorter intervals, and often connected with a "peculiar feeling of coolness" in the ear, sometimes during the day, but more often at night, so he could hardly sleep. Some weeks later severe pains occurred in the left ear, at times simultaneously, and again alternately, with those of the right ear.

In the right ear a feeling was at first perceptible as of its being filled with water, and then followed a stinging sensation as of a prick by some sharp instrument. In the left, on the contrary, there was a feeling as if deep within the ear there was a displacement of the parts. As an illustration of the severity of the pain it may be added that in consequence thereof the patient twice attempted suicide.

The drum exhibited nothing abnormal on either side, with the exception of retraction and slight clouding, and the tubes were transmissible. The ticking of a watch could be heard by the right ear at nearly four centimeters distance; by the left not at all; through the cranial bones the perception was zero. A sharp whisper could be heard on the left side at four centimeters and on the right at twelve centimeters. Tuning forks (A and F) could be heard by the right ear, but on the left both produced, especially the higher, an unpleasant painful feeling. Galvanization, and still later faradization, afforded only transient mitigation of the pain. Sodium iodide exercised no beneficial effect, neither did the bromide with tincture of chamomile. An intercurrent acute stomach catarrh with high fever induced cessation of pain so long as the disease persisted; but the quinine prescribed induced such severe tinnitus aurium that the patient could not be persuaded to try it again, or indeed any other medicine. Frequently applied massage of the maxillary region and of the tragus produced no effect whatever; hypnotism produced only transitory results. The application of friction, electricity and cauterization of the mastoid process, with thermo-cautery, and the after application of oil of mezereum, afforded no relief.

January 5th, 1891, I made first trial with the "pressure-probe," and upon each side three pushing movements were made upon the processus brevis. This generated a sudden transitory pain in the ear, like the spontaneously appearing one; but afterwards the otalgic attacks became constantly less in intensity and more rare, as did also the pain which appeared in the temple and sides of the neck after the first treatment. By January 19th the pain had entirely ceased in both ears, sleep was again good, and the patient apparently well.

The patient again appeared April 9th. While the right ear was then (and still is at this writing) free from pain, excepting a peculiar attack of ten minutes' length on April 27th, the disease revived in the left ear on February 16th. The pressure-probe treatment brought mitigation of pain with only rare exacerbations and often recurring abatement. After two months' treatment the patient left once more apparently cured. A close description of the course of the disease I have unfortunately omitted, but the following more carefully kept notes of the same case will give a clear illustration of the course and results of the pressure-probe treatment.

On January 4th, 1892, the patient again came for treatment for the same trouble; for six days, during which he was in bed with bronchitis, he had severe pain, lasting an hour, in the left ear. Applied pressure-probe.

January 5th. After yesterday's treatment some pain in the vicinity of the side of the neck, formerly painless. Pressure-probe.

January 6th. *Status idem.*

January 7th. Likewise; no more pain in the ear, but some in the side of the neck; no treatment.

January 8th. *Status idem;* after application of pressure probe there was increased pain in neck.

January 9th. Pain in neck less; about 5 P.M. sudden "raging earache" which, after the pressure-probe, became if possible more severe than ever, but after ten minutes distinctly decreased.

January 11th. Pain lasted day before yesterday in less degree until bedtime. Yesterday and this morning free from pain; since 2 P.M. pain in the ear, radiating to the mastoid process, neck and temple. Pressure-probe; pain increased.

January 12th. Pain lasted yesterday, generally decreasing in intensity, until one o'clock. To-day, since 2.30 P.M., it grew more severe after the pressure-probe, especially on the neck and processus mastoid.

January 13th. The pain left yesterday after two hours' duration; to-day, almost the

whole day, there were twinges in the left ear, processus mastoid, and in the neck, at very irregular intervals. Pressure-probe; pain increased.

January 14th. With the exception of half an hour yesterday, free from pain; in the night, however, severe pain of longer duration. Afternoon, a little pain which increased after the pressure-probe.

January 15th. Yesterday free from pain with the exception of an hour; to-day pain at times in the ear and again in the neck, still not intense and of short duration. After the pressure-probe, increase.

January 16th. Yesterday, an hour after the treatment, free from pain. Since 2.30 P.M. pain in the neck, and in the ear a feeling as of cold water, which the patient recognized as a sign of an attack of severe, lasting pain, and greatly feared accordingly. After the pressure-probe, severe pain.

January 17th. Yesterday, after about an hour's duration, the pain gradually ceased; to-day much less pain, alternating between the ear and the neck and mastoid process. After the pressure-probe, somewhat severe pain, which however soon ceased.

January 18th. Yesterday evening, from seven o'clock until bedtime, severe pain. After 2.30 P.M. the cold-water feeling. Pressure-probe; afterward pain for a short time.

January 19th. At night, from 12 P.M. to 2.30 A.M., very intense pain. After 12 M. pain which increased after treatment, but soon ceased.

January 20th. From 11.30 P.M. to 3 A.M. great pain; in forenoon freedom therefrom; afternoon, intense pain.

January 21st. The patient greatly disturbed, obtained no sleep; pain since yesterday, constantly; severe in spite of sedative powders. Patient begged for pressure-probe, since the attacks under that treatment grew less and less. Pressure-probe; pain increased.

January 22d. Pain ceased yesterday after one-half hour's duration; good sleep; since 3 A.M. the feeling of cold water. Pressure-probe; pain in ear.

January 23d. Free from pain yesterday with the exception of half an hour. From 2 to 3 A.M. a severe attack. Pressure-probe; pain.

January 24th. Yesterday pain of half an hour's duration. After the pressure-probe another slight attack, which ceased in half an hour.

January 25th. No pain; pressure-probe, followed by only slight pain at the seat of pressure of but a half-hour's duration.

As previously remarked, the patient refused all medicaments, since they had always been followed by severe pain; indeed, he attributed his relapse to the use of preparation of opium taken for irritating cough. This prejudice precluded the use of any other drugs.

January 26th. Towards 2 A.M. a very severe otalgic attack lasting two hours; in the afternoon, feeling of cold water. After pressure-probe, greater pain, which ceased in half an hour.

January 27th. Since 1 P.M. severe pain. Pressure-probe; pain increased.

January 28th. Yesterday free from pain with the exception of half an hour. Pressure-probe; pain of hardly thirty minutes' duration.

January 29th. In the night great pain for about half an hour; to-day there was at times a twitching sensation in the ear. Pressure-probe; pain.

January 30th. Only half an hour of pain yesterday. After the pressure-probe only slight pain, which soon ceased, and was felt only at the point of manipulation.

February 1st, 4th, and 10th. *Status idem.*

February 13th and 16th. Pain for half an hour in the evening. The pressure-probe applied gave a vibratory sensation with a secondary feeling as of cold water, differing, however, from the same sensation previously, in that whereas this had always increased and been followed by an attack, now it was of short duration, very slight, and noticeably weaker.

February 27th. No return of the pain since the last treatment.

Case 2.—Anna H——, aged 19, suffered for fourteen days, after cessation of a toothache, with severe pain in left ear, that generally was most severe at night in the warmth of the bed, when it was almost constant; during the day, less severe and of less frequency, generally of fifteen minutes' duration, with an interval of some hours. The left drum was retracted and clouded; in the left under jaw, the last molar tooth carious.

In order to try the effect of the remedy I did not have the tooth extracted, but applied the pressure-probe. The sensation received thereby consisted in momentary tinnitus, but only while the pressure lasted.

On the following day, November 18th, 1891, the patient made the statement that "Yesterday after going home, for about one-half hour, only slight pain, which was repeated at night for an hour;" had not been so well for fourteen days. No treatment.

November 19th. No pain in the ear, only pulsating stinging sensation along the temporal artery, which ceased on pressure, and

was brought on by constant reading. No treatment.

November 26th. Relapse. After 12 P.M. the day before there was five hours of medium pain in the left ear and temple and in malar bone. Pressure-probe; sensation as before.

November 28th. Free from pain. Four days later a slight toothache appeared, but without pain in ear; to prevent a return of the same the carious tooth was extracted.

December 17th. Free from pain.

Case 3.—K. L——, aged 8, came November 27th, 1891, on account of severe ear pain that had persisted for a week, occurring two or three times a day, and once or twice during the night, each time lasting about an hour. There was no pain this day, but two days before it had been very great. The right drum presented a normal appearance; in the right and left lower jaw the last molar tooth was carious, but not painful. Pressure-probe applied, during which application there was tinnitus; no increase of pain.

November 28th. Free from pain; no treatment.

December 11th. Neither earache nor toothache; complete health. In order to guard against relapse, extraction or filling of diseased tooth was recommended.

Case 4.—Rosalia S——, aged 45, servant, came to me December 2d, 1891, suffering from right otalgia; one molar tooth right upper and one right lower, carious. Pain had lasted two days, with intervals of an hour; she wept on account of pain. On application of pressure-probe there was momentary cessation of pain. Entrance of secondary pain; toothache in right upper jaw; tinnitus aurium.

December 3d. Free from pain the day before until 11 P.M., when it became constant until 4 A.M.; then it ceased altogether. Pressure-probe; tinnitus and slight pain during use of the same.

December 17th. Free from pain until the 13th, when toward evening, while exposed to a draught of a few minutes' duration, there was a very slight attack; since entire freedom.

The case of Katherine F——, aged 39, was similar to the last three, as were also six other cases, none of which are worthy of special detail.

The influence of the pressure-probe treatment on the neuralgic attacks was in all cases satisfactory. At once, after the first application of the probe, there was relief from pain, not only respecting the intensity but also the extent. In those cases in which the pain had lasted for a short time—from two to three weeks—a few days, or indeed one treatment, were enough; while those cases of weeks' or months' standing, with occasional exacerbations, showed constant progressive improvement. The treatment was daily, especially in the more chronic cases, and was only omitted when the patient was free from pain. When the patient stopped treatment too soon there was generally the above mentioned exacerbation as a consequence. When the massage-probe treatment was applied during an otalgic attack the pain ceased entirely, and on its return never reached the former height. In conclusion allow me to offer the following observations:

Neuralgias of the tympanic cavity are very obstinate and sometimes defy all methods of treatment. Great patience and endurance are required; but generally we succeed in finding a remedy against the disease among the many which we are able to command, whereby we may at least gain a mitigation, if not produce a permanent cure. I by no means offer the sanguine expectation that the procedure described is a cure for all otalgias, and I will not depreciate the value of the known and often verified remedies, but I believe that it will always be a satisfaction to be acquainted with and to have made a thorough trial of this method of procedure, before leaving the poor sufferer to his sad fate.

Vienna, Austria.

INJECTION TREATMENT OF HIP-JOINT DISEASE.

BY ALEXANDER H. FERGUSON, M.D.

The intra-articular medication of tubercular joints is of but recent date, is not yet very widely used, and it is with a hope of stimulating the profession to employ it more that I herewith present my views and experience.

For illustration I select the hip-joint because of the frequency with which it is diseased, and because in my hands it has been more amenable to the iodoform emulsion injection than any other joint; also it is generally admitted that a larger proportion

of these cases recover with expectant treatment.

Tuberculosis of the hip-joint is primarily a bone disease in the majority of cases, and the upper extremity of the femur (usually the neck) is the part most frequently infected.

The prognosis under other methods of treatment is not at all satisfactory, since the mortality varies from seven to 73.2 per cent. (Young), being least in non-suppurating cases. The average mortality has been rated at thirty per cent. with what is called "efficient treatment," which I believe to be too high. Again, the splint treatment requires from two to four years, and a quarter of a century has sometimes elapsed without permanent relief being effected. Usually there is from one to ten inches of shortening, and angular deformity and anchylosis are common.

The objections to the hitherto recognized methods of the treatment of hip-diseases are: The high rate of mortality, the long time that the patient is under treatment, the great deformity that commonly ensues, and the complications — suppuration, phthisis, and amyloid disease—which are liable to set in and carry off the patient.

The physiological rest in bed for a considerable time, as often recommended, is decidedly deleterious, and renders the patient more liable to complications; but this treatment is happily no longer generally recommended throughout the whole course of the disease, rest in bed during the acute stage and the application of a splint immediately afterwards being the procedure commonly recommended to-day. The constant immobility of a joint, even though not diseased, is sure in time to impair its function, but when applied to a diseased joint may, and often does, destroy its usefulness altogether,—that is, the application of a splint to a tuberculosed hip-joint, which permanently immobilizes it for two or three years or more, is very liable to result in anchylosis. It appears to me that the permanent fixation of the joint by the Thomas splint is more or less of a delusion so far as staying the progress of the disease is concerned, though there is no gainsaying that it does some good and is an improvement on the purely expectant plan of treatment.

The American method of treatment by splints aims at giving rest to the joint by means of extension (which is supposed to overcome the muscular spasm), and to induce fixation and prevent concussion. With the American splint, of which there are a great number of varieties, applied, the patient is allowed to use the limb as he may, and the outdoor exercise thus permitted is of great benefit; yet one is often disappointed and finds the shortening increasing, the deformity becoming more and more marked, while abscesses may form or other complications arise.

It was with a view of effecting an improvement upon the splint treatment that early excision was at first recommended; it had its day, and is now but seldom advised. The objections to the early operative treatment, causing immediate shortening and in many cases without cutting short the disease, are so clear that they call for no comments.

I now proceed to delineate the manner of using intra-articular injections of iodoform emulsion, the objects of which are to cut short the disease and to secure a useful, movable joint. An old rule of surgery was, never forcibly move strumous joints—arrived at from the sad experience of thereby increasing the local inflammation and very frequently of disseminating the disease. But this can now be violated with impunity when the diseased joint is first injected with the iodoform emulsion. Iodoform, it is true, has but feeble anti-germicidal properties, but it is the best agent to induce granulation tissue that we have, and granulation tissue is the best weapon nature has against germs. This treatment has been so satisfactory in the management of my cases of tubercular coxitis during all stages, that I feel encouraged to use it in preference to any other method of treatment. Sometimes it is advisable to secure fixation by means of splint or plaster-of-Paris, especially to alleviate pain due to muscular spasm, or to correct deformity; but more frequently no apparatus is applied; the patient is enjoined to use crutches, the sound limb being lengthened by a thickened sole to the shoe.

In making the iodoform emulsion, ten per cent. of the finely powdered drug is thoroughly worked up in glycerin with pestle

and mortar, this mixture poured into a wide-mouthed bottle, a stopper of cotton-wool put in, and the whole thoroughly sterilized in Arnold's or Backmann's steam sterilizer, when it is ready for use: or olive oil may be used instead of the glycerin.

The dose to be injected varies from one to eight drachms, depending upon the age and condition of the patient. Say a child one year old may be given one drachm, and a person of fourteen can very well stand a maximum dose. Smoky and scanty urine frequently results from the use of one ounce and a half to two ounces, consequently I ceased to employ the larger quantity, and hold an ounce to be a good practical maximum dose. I have observed tolerance is established after the first few injections, and that the reaction, manifested by pyrexia and its associated signs and symptoms, becomes less severe; I have also observed a marked constitutional betterment, and marked improvement of the lungs when the latter are affected.

Regarding the number of injections required I cannot say, as such depends entirely upon the individual case; from one to twenty may be demanded, possibly more, but usually from three to six suffice. A few cases have been relieved by one injection; several by two or three; in one case I was obliged to employ eleven. Two months ago I examined the knee-joint of a young girl which Doctor Fenger injected only once six years ago, and without return.

The longest time that I deemed it necessary to pursue the injection treatment before a cure was effected was nine months, and it was a case well advanced in the second stage, —when the injection treatment was begun the little fellow had been treated for over two years with rest, pulleys and splints. Even though the time occupied should be one or two years, the emulsion treatment if properly employed is a marked improvement over any other method; it practically shortens the disease from years to months, and the suffering from months to days.

The treatment is suitable in any case and any stage of tubercular hip-joint disease, and the benefit derived is in inverse ratio to the length of time the malady has existed. The management of cases during the first stage is very simple. If fluid is found in the joint, it is withdrawn and the emulsion substituted. The patient is allowed out of bed on the third or fourth day, the limb used as he may feel inclined, and he may or may not use crutches until the time arrives for the second operation. The injection is repeated until there are no further signs or symptoms of the disease, and the structure of the joint is judged to be normal by the sensation conveyed through the injecting trocar and cannula. Should marked improvement occur after two or three injections, three weeks apart, a week or two of grace may be given before the joint is finally tested. The few cases I have treated during the first have been prevented from going on to the second stage; the lameness speedily passed away, the pain subsided, the induration around the joint cleared up, the limb became stout again, and the function was perfectly restored. Most of the cases, however, come to the surgeon for treatment after the general practitioner or orthopædic surgeon has tried rest, splints, and so on.

In non-suppurating cases the joint is injected, free passive motion employed at the time, and no splint applied unless there is deformity or severe muscular spasms; by making free passive motion the emulsion is distributed to every part of the joint, and the tendency to anchylosis prevented.

If tubercular abscesses have formed, these are evacuated and the joint injected with the emulsion until the latter is seen to come out at the opening made for purposes of evacuation of pus, when a large antiseptic dressing is applied, and the patient put to bed and kept there for two or three weeks, during which time the joint is dressed every three or four days, great care being taken not to introduce pyogenic organisms into the wound. Should the abscess in or near the joint be a mixed infection, then it is usually necessary to wash it out thoroughly with a weak antiseptic solution of boric acid or 1-to-10,000 perchloride solution, etc., before injecting; this is done by passing two trocars into the pus cavity and allowing the irrigating stream to pour in through one and out at the other, while the joint is being flexed and extended. When cases present themselves with sinuses leading to the joint, with or without pyrexia, it is not deemed necessary to remove those

and clean out the joint, as was formerly done, unless a sequestrum is detected; instead, the sinuses are lightly curetted, allowed to remain for drainage purposes, and the joint injected with the emulsion as if they had not existed. It will be noticed that the emulsion will come through those sinuses. This is the class of cases that needs an antiseptic dressing, a splint to correct deformity, but not confinement to bed. If no angular deformity is present a splint is unnecessary. The more advanced cases of tuberculosis of the hip-joint are managed in a similar manner. Operative interference is very seldom called for.

In this manner I have treated more than two dozen cases with most satisafctory results, and that now appear to be permanently relieved. Of two other cases, one refused to receive the subsequent injections, and the other had marked tuberculosis of the apices of both lungs; but the latter gained over twenty-five pounds during the five months he was under my care.

To inject the hip-joint the patient should be rendered surgically clean and anæsthetized; a point selected immediately above the tip of the trochanter major, and the trocar and cannula plunged in, aiming at the neck of the femur; this being reached, the instrument is carried to the anterior surface of the neck, where the disease very frequently begins. If the bone is found softened, the injection is made at this point, passive motion subsequently given to the joint, the cannula withdrawn, and the puncture sealed with collodion. I prefer the supra-trochanteric to the anterior route, because any part of the diseased joint can be reached, there are no important nerves or vessels in the way, and the long distance through muscular tissue prevents the fluid from escaping through the puncture; because the capsule is here strengthened by the muscles inserted into the digital fossa, at which point, too, the capsule is less frequently diseased.

In exploring a joint at subsequent injections for disease, some of the emulsion should be deposited in the track of every puncture made by the trocar and cannula.

The instrument used for purposes of injection should be one that can be boiled. The part which enters the joint would better be a trocar and cannula than a needle, on account of being stronger and more suitable for exploring and irrigating purposes.

Chicago, Illinois.

COUGH DUE TO IRRITATION IN UPPER AIR-PASSAGES.*

BY CHAS. N. COX, M.D.

The majority of coughs probably have their origin at some point in or below the larynx; but it will sometimes be found that the cause is irritation of the respiratory passages further up. In seeking the cause of a cough, this must be borne in mind.

Cough is always a reflex act. It is a *normal* reflex of irritation in the larynx-trachea, and the further continuation of the air tract in the lungs. It is an *abnormal* reflex of irritation in the upper air-passages,—for instance, the normal reflex of irritation in the lower pharynx is *hemming;* about the fauces, *gagging;* in the nasopharynx, *hawking;* in the nose, *sneezing*. If cough is set up by irritation in any of these regions instead of the usual reflexes, the phenomenon is an abnormal reflex; but the sensation of irritation in cough is usually referred to the region of the larynx, no matter whence its source.

It is possible for cough to be caused by irritation or pathological conditions in almost any part of the nasal cavity. The two regions most frequently provocative of nasal cough are those including the posterior ends of the inferior turbinated bodies and the posterior end of the septum, and the inner surface of the middle turbinated bodies and that part of the septum lying opposite. In a few instances cough has been found as a pronounced accompaniment of hypertrophic rhinitis; rather more frequently in vasomotor rhinitis and hyperæsthesia of the nasal mucous membrane. Spurs and deflections of the septum are quite frequent seats of sensitive areas, which are productive of a cough. The tickling cough met with in the later stages of an acute coryza, when the cold is said to have "gone to the chest," is frequently due to inflammation of the posterior

* Read before the Medical Society of the State of New York.

ends of the inferior turbinated bodies and septum.

Polypi sometimes induce cough. In several instances a most marked cough has been entirely relieved by removal of these growths, but returned with their recurrence, and was again abolished by clearing away the neoplasms.

The mechanical irritation of dry crusts in atrophic rhinitis has been mentioned as a cause of cough.

A cough may be due to some pathological condition in the nasopharynx, but not so frequently as to nasal irritation. The more common causes for cough in this region are adenoids, and the accumulation of thick tenacious mucus in chronic nasopharyngeal catarrh.—Many cases of so-called "morning cough" are due to the latter condition.

The pharynx is a more frequent cause of cough, and the dry, glazed mucous membrane of an atrophic pharyngitis is sometimes attended with the symptom. Rather more frequently, a granular pharynx or a chronic follicular pharyngitis incites the reflex. In one case, the removal of a papilloma not larger than an ordinary pin-head, springing from the posterior surface of the posterior pillar, almost instantly cured a cough of several years' standing.

An elongated uvula is a well known cause of cough. The tonsils also are occasionally the source, particularly when adhesions have formed between them and the faucial pillars.

A source of cough of great importance is that derived from enlargement or a varicose condition of the lingual tonsil. Hypertrophy of the epiglottis sufficient to cause it to come in contact with the tongue, or any of the surrounding parts, will almost with certainty evoke a cough.

Observation justifies the belief that these sources of cough are not as fully recognized as their importance demands; patients are too often turned away with a sedative which soothes but does not remove the cause. Again, cough is not only occasionally, but very frequently, due to some irritation above its ordinarily recognized seat in the larnygo-bronchial tract, and upon the recognition of this fact will often depend the effectual and radical removal of the symptom.

An exact diagnosis is often a most difficult task. Coughs caused by irritation in the upper air-passages are not attended with any characteristic by which they may be known, unless it may be that such are usually of a dry, hacking variety; yet the same can be said of certain forms of laryngeal irritation, or coughs due to more distant reflexes.

If marked evidence of disease be present anywhere in the pharyngo-nasal tract, and especially if contact with the probe produces cough in a striking degree, the inference is fair that this locality may be the source; and then by exclusion, if local anæsthesia of suspected area by a four- or five-per-cent. solution of cocaine hold the cough completely in abeyance, the evidence is conclusive beyond a reasonable doubt that the pathological condition of the locality is the initial of the reflex.

In a very considerable proportion of cases the local irritation is the prime factor, and local treatment alone will effect relief; but if the irritation has been too long continued, or if perverted nerve-action is due to inherited or acquired disease, local treatment will not avail. It will then be necessary to institute such constitutional treatment as will restore tone to the nerve-centres and inhibit their excessive activity. Digestion and alimentation and existing diatheses should be the subjects of most careful consideration.

Brooklyn, New York.

PRESERVATION OF ANATOMICAL SPECIMENS.

At a recent meeting of the London Pathological Society, Doctor Kanthack and Mr. Shaw exhibited pathological specimens preserved by the aid of formalin, which has the effect of retaining the natural colors of the preparation. Judging from the specimens shown, the result, so far as the preservation of color is concerned, was everything that could be desired. The process requires both patience and experience to obtain the best results, but its introduction marks a new era in the preservation of museum specimens, the decoloration of which under the methods hitherto resorted to constitutes such a serious drawback to their educational value.—*Medical Press and Circular.*

Clinical Reports.

A PLEASANT CONTRAST.

BY F. S. HALSEY, M.D.

I have used Taka-Diastase to advantage in the treatment of amylaceous indigestion, and therefore give the following brief recital of a few typical cases which illustrate its efficacy:

Case 1.—Male, aged 50; had for over a year been troubled with repeated attacks of indigestion; during part of that time had been unable to digest anything but an egg beaten up with milk: suffered constantly from gastric distress, distention, flatulency, and more or less constipation. Pepsin and dieting failed to give relief. He was then put on Taka-Diastase and instructed to take one capsule of two and a half grains immediately after each meal. Before he had taken a dozen doses the flatulency, gastric distress and distention entirely disappeared, and for the first time in weeks he could return to a more liberal diet than eggs and milk. He has continued the remedy and can now eat with satisfaction and digest his food with comfort; the constipation is relieved, and he expresses himself as feeling in good shape.

Case 2.—Female, aged 55. During the last two years she has had to have teeth extracted, and on account of some disease of the gums her dentist could not fit her with a permanent set of dentures, consequently has not been able to masticate food. Suffered constantly from severe indigestion, distress after eating, flatulency, pain in abdomen, constipation, and many disagreeable and severe nervous manifestations. I gave her Taka-Diastase, one capsule (two and a half grains) immediately after each meal. After the second day of treatment all of the disagreeable symptoms disappeared and she expressed herself as "living in comfort again."

Case 3.—Male, aged 36; very miserable; been troubled for a year with attacks of indigestion; appetite, though fair, not up to the mark; suffered severe gastric distress, distention and flatulency with bloating, and ate very little; had taken many of the ordinary aids to digestion without avail, and about concluded he was never to be relieved. I ordered him two and a half grains of Taka-Diastase in capsules to be taken at the very moment of eating, with the result that in a week's time he was decidedly better, and after two weeks so much relieved as to be able to return to an enlarged diet. The last time I saw him he informed me he would never again be without those capsules.

Case 4.—Female, aged 72; during twenty years has had three attacks of hemiplegia with the result of complete paralysis of right side. Three years ago she began to be troubled with irregularity of bowels, flatulency and great distress, so much so that she was unable to take any food but peptonized milk and light broths—solid food or vegetables brought on frequent attacks of vomiting. Life was a burden, and she felt that there would be no relief from her constantly increasing symptoms. She ran the scale of digestive agents without any marked result. During the summer was put on Taka-Diastase in same doses as in the preceding case, and after two weeks was able to partake of meat and also fruit. Her condition steadily improved, until now she assures me "life is a pleasant contrast."

Case 5.—Female, aged 40; suffered manifestly from indigestion for many years, accompanied by pain and distress after eating, flatulency and constipation and severe nervous manifestations. Taka-Diastase relieved all symptoms in a shorter time than any remedy before taken. She is now able to eat a more varied diet than at any time for years.

Case 6.—Female, aged 63; a sufferer from indigestion for two years; constipation, gastric distress, bloating and flatulency; very nervous. After taking Taka-Diastase for three weeks she wrote: "I am feeling better than at any time during the last two years, and eat with comfort, and have none of the old full feeling that was formerly present; bowels are better; there is no bloating whatever; and no longer any trouble with flatulency."

Case 7.—Female, aged 35; taken with severe indigestion about two months ago; bowels distended, and large quantity of flatus constantly passed; unable to eat any food but the simplest, and even that caused distress. Was ordered Taka-Diastase two and a half grains at a dose in capsules immediately before meals, and from the very outset began to derive marked benefit. At the present moment she has none of her former symptoms, enjoys her meals, and is comfortable.

123 West 69th Street, New York City.

PNEUMONIA.

BY J. L. KITTSON, M.D.

Mrs. S——, widow, aged 64. February 12th, 1889, she presented herself complaining of indigestion due to bilious congestion that had persisted some time; was weak; had

sensations as of cold water being thrown on her back; headache of a frontal character; a foul tongue; tenderness over the region of liver on the right side; bowels constipated; gastric colic accompanied by flatulence; pulse 108; respiration 33; temperature 103°; tongue covered with dark brown fur; great pain on both sides of the base of the thorax; urine scanty and highly colored; very little cough or expectoration; very impatient and irritable. No crepitation was discovered in lungs, but tubular respiration over entire front of the thorax; very weak condition. Ordered calomel in two-grain doses every second hour till the bowels were freely moved; also five grains carbonate of ammonia and one-half drachm spirit of Mendererus in four drachms of water every three hours.

February 13th she passed a fair night, not being delirious at all; pulse 93; respiration 28; temperature 101°. Bowels had moved three times from the effects of the calomel. She complained, however, of considerable pain, most intense on right lower side of chest in front; there was no cough and no expectoration, but sometimes a catching of the breath which might have been due to pain. Ordered six grains Dover's powder every five or six hours as occasion might demand.

February 14th, at 11.15 A.M., I found her pulse 100; respiration 26; temperature 101.3°. Bowels had not moved since day before; no cough or expectoration. Urine was still scanty and high colored, with a muco-purulent sediment and flocculi of mucus floating in the supernatant fluid; urates in abundance, accompanied by some phosphates; reaction acid. Still she appeared fairly well and was without pain except in lower part of right side. The characteristic flush on the cheek was fast disappearing. During the night she had four ounces of egg-nog, and being thirsty drank a good deal of cold water. The carbonate of ammonia mixture had nauseated heretofore, but this feeling had now passed away and she seemed to be doing fairly well.

February 15th, 11.15 A.M., pulse 106; respiration 26; temperature 102.3°. Bowels had not yet moved, but she passed a very comfortable night and only complained of pain in the right anterior portion of the chest. The expectoration for the first time was now rusty and purulent; pain only on taking a long breath; tongue dry and coated with a brown fur. Repeated calomel as before.

February 16th she was improving; pulse 108; respiration 22; bowels moved once.

February 17th the pulse was 102; respiration 20; temperature 101.6°; bowels had not moved. The conditions of the urine still persisted; she coughed now only in the morning, and the expectoration was free and not so rusty nor so tenacious. Complained of neuralgic pains in right side. Ordered salicylate of quinine four grains every three hours. She took the ammonia mixture and her nourishment very well, the latter consisting chiefly of milk.

February 18th, at 3 P.M., her pulse was 120; respiration 26; temperature 99.6°. She complained of tenderness over back of chest; was expectorating a quantity of brown tenacious mucus, viscid in character. For the first time there was dulness behind on percussion, over the middle lobe of the right lung, accompanied by coarse crepitation. Ordered one grain of quinine every three hours, and carbonate of ammonia five grains, in a drachm of fluid cardamom compound with water, every four hours; continued the milk, egg and whiskey often.

February 19th, pulse 94, intermitting every fourth beat; respiration 26; bowels freely moved by the use of simple enema. Objected to taking the mixture and the milk. Cough very slight and expectoration scanty.

February 20th, respiration 34, short and sighing; pulse 126, weak but not intermittent; the bowels had not moved during the previous twenty-four hours, and she refused to take her medicine and the milk, — had taken only about one ounce of milk since the day before. Almost unconscious for the last twenty-four hours, making wry faces as if suffering, though did not complain of any special pain; could only be aroused by speaking loudly; passed urine in bed, as if it were dribbling away, but there was no paralysis of bladder from overdistention. Also expectorated two large dark-brown tenacious pieces of mucus. The last time she passed urine it seemed clearer and more like water, but previous to that had been dark colored and very offensive.

She died at 6 P.M. on the evening of this day.

Hamilton, Ontario.

IRRIGATION OF PERICARDIUM.

Verdelli, of Parma, claims to have recently opened the thoracic cavity, exposing the pericardium, and giving the latter an antiseptic washing; the patient, who had been given up as lost, recovered.

All of which "is very nice oysters," as Dick Gasket was wont to say, "but not apt to keep."

THE MEDICAL AGE.
A SEMI-MONTHLY REVIEW OF MEDICINE.

—PUBLISHED BY—
GEO. S. DAVIS, Medical Publisher, Box 470.

All communications regarding papers, reports, etc., should be addressed to the Editor of the MEDICAL AGE, P. O. Box 470, Detroit, Mich.
Matters relating to advertising space, etc., to be addressed to the publisher, Geo. S. Davis, Box 470, Detroit, Mich.
The editor cannot engage to return rejected manuscripts or to correspond with the writers thereof, unless such are accompanied by sufficient postage.

DETROIT, MICH., FEBRUARY 25th, 1897.

Editorial.

SOME MEDICAL ODDITIES.*

Foremost among English physicians of the Seventeenth century must stand out that blunt, clever, irascible Yorkshireman, Doctor Radcliffe, whose memory the great library at Oxford (for which he bequeathed forty thousand pounds) will never allow to perish. Though there was perhaps a certain pride about his honest bluntness, we must respect the man who could tell the truth even to royal patients.

Two years after his arrival in London, Radcliffe was appointed physician to the Princess Anne of Denmark; and soon after the accession of King William, was rewarded for the cure of two of William's favorites by a present of five hundred guineas from the privy purse. Though refusing the post of Court Physician, Radcliffe is said to have received from the King in six years nearly eight thousand guineas. His gains, indeed, seem to have been enormous, for in 1691 he received one thousand guineas from Queen Mary for successfully prescribing for the young Duke of Gloucester, the son of the Princess Anne; and we cannot disbelieve the story that Doctor Gibson made a thousand a year by receiving patients who were unable to obtain admission to Doctor Radcliffe.

In 1694 he attended Queen Mary for the smallpox, and on merely reading the prescriptions of the other physicians, at once pronounced her "a dead woman"—a prediction very soon verified. Queens and princesses might shrug their shoulders at his name, but they could not dispense with Radcliffe's services; and we find him telling a messenger of the Princess Anne, "that she had nothing but the vapours, and was as well as any other woman in the world, could she but think so." He was dismissed the court for this hit. Even royal pride, however, had to bow before the great Doctor, and he was, in 1699, again sent for to see the Duke of Gloucester, whom he, abusing soundly the two court physicians, at once pronounced as beyond the reach of medicine.

In 1695 King William gave Radcliffe twelve hundred pounds, and made him the offer of a baronetcy, which he declined, for having gone abroad to attend the Earl of Albemarle, who on his recovery had sent him four hundred guineas and a diamond ring. Radcliffe did little to conciliate even the King, and told the latter frankly that all promises to cure him were futile. He might, he said, if he gave up drinking long toasts with the Earl of Bradford (who drank hard), live three or four years; but no art could carry him further. When the King was finally seized with dropsy, and asked the Doctor what he "thought of his legs," Radcliffe replied: "Why truly, sir, I would not have your Majesty's two legs for your three kingdoms."—No wonder that William ever afterwards refused to see the blunt Medico in spite of the intercessions of the Earl of Albemarle and other nobles!

For many years Queen Anne remembered the message about "the vapours," and never sent for him; but when her husband, Prince George of Denmark, was dying, she again had to bate her pride. But Radcliffe was both blunt and rough, and told her plainly that no medicine could preserve him more than six days, and sure enough the Prince died of dropsy within that time.

Fond as Radcliffe was of money, he could bear losses philosophically, if the story is true that, losing five thousand pounds in a foolish commercial adventure, he coolly remarked in his city tavern that, after all, it only amounted to going up five thousand more pairs of stairs. He was equally calm when he lost fifteen thousand pounds down and a City bride. With that strange incon-

*The editor acknowledges his indebtedness to *Chambers' Journal* and "Notable Men of Medicine."

sistency common to human nature, though he hated breaking a guinea for small payments, Radcliffe was charitable in a large way: he secretely sent five hundred pounds to the Nonjuring clergy of Norwich, and on another occasion three hundred pounds to the poor Episcopal clergy of Scotland.

To those whom he respected, the Doctor was rough; to those whom he despised, he was terrible indeed. Tyson of Hackney, a notorious usurer and miser, once came to him disguised as a poor man, in order to save the fee. Radcliffe recognized him, and at once shook Death's dart in his face: "Go home, sir, and repent!" he roared. "The grave is ready for the man who has raised an immense estate out of the spoils of orphans and widows! You will be a dead man, sir, in ten days!" Tyson died within the time specified, having the wretched satisfaction of leaving behind him three hundred thousand pounds.

Radcliffe died in 1714, and was succeeded by Doctor Mead, the son of a dissenting minister, who first practiced inoculation in England. Though an ardent Whig, Mead was a friend of Pope, Garth, and Arbuthnot. Educated at Utrecht, Leyden, and Padua, he became famous at an early age, and soon acquired even a Continental reputation. Though a mild, forbearing man, he once drew his sword on his scurrilous rival, Doctor Woodward, and forced him to beg his pardon. His grand house in Great Ormond Street contained a library of ten thousand volumes, and curiosities innumerable, which he could well afford to purchase out of his six thousand pounds a year. A liberal patron of arts and sciences, he helped to start the Foundling Hospital, and was generous to artists and scholars. As physician to St. Thomas's Hospital, anatomical lecturer to the Surgeons' Company, and vice-president of the Royal Society, he knew every one who was eminent. He corresponded with his old fellow-student, Boerhaave, and was eulogized by Pope, who says: "I highly esteem and love that worthy man."

Like his patron Radcliffe, Mead was fond of taverns. He spent his evenings at Batson's coffee-house; and in the forenoons, apothecaries used to consult him, for half-guinea fees, at Tom's coffee-house, near Covent Garden. With all his learning, Mead believed that the sun and moon had influence over human bodies, and wrote a work to prove this.

At the age of twenty, Fothergill, the great-grandfather of J. Milner, who was the son of a planter in Tortola, released his fifty slaves, and became a voluntary beggar; then commencing practice, he amassed nearly two thousand pounds in six months, and went to England, where he soon became renowned for his benevolence and his learning.

Other characters of this era were Freind, whose Jacobitism got him into the Tower, and Cheselden, who had a predilection for pugilism, which he deemed a "noble art." Then there was the Quaker physician, Lettsom, who when only forty years of age is said to have secured an income of twelve thousand pounds per annum, and whose charity and generosity knew no bounds. For a highwayman who stopped him to take his purse, he obtained a commission in the army. His rich patients he neglected for the poor. He was one of the earliest supporters of the Margate Sea-bathing Infirmary, and promoted vaccination, and helped forward the Royal Humane Society. Lettsom is described as a tall man, with a dark yellow face. The well known epigram upon him ran:

> When any sick to me apply
> I physics, bleeds and sweats 'em;
> If after that they choose to die,
> What's that to me?—I Lettsom.

FIN-DE-SIECLE THERAPEUTICS.

In this issue of the MEDICAL AGE appears a "New Treatment of Otalgia Tympanica," by Doctor Emanuel Max, of the General Polyclinic of Vienna. Coming from the source it does, it was concluded to give it space, not because of manifest intrinsic value, but because of some contained suggestions. It carries, of course, the Germano-Austrian "hall-mark" essential to its hearty endorsement by the bulk of American practitioners, and so doubtless will be accepted, in spite of manifest absurdities, by many.

But note the puerile assumptions drawn! One case, after suffering at intervals for nine months, and treated by the "push-probe" at varying intervals, is cited as evidence of the

value of the new procedure in treating otalgias.—Time enough had elapsed for the malady to be relieved by natural causes. No explanation is offered *why* this treatment should afford any result; there is no suggestion of physiological or other application than that evolved through pure empiricism. Again, some of the cases were manifestly relieved by removal of carious teeth, yet the credit is given exclusively to the "push-probe." Doubtless the latter does possess some value, as an implement of massage, but beyond this we fail to see any evidence of value, and even from this standpoint it is theoretical rather than actual.

THERAPEUTIC APPLICATION OF DIASTATIC FERMENT.

Despite the fact that the transformation of starch—into the soluble conversion-products which are suited to absorption—proceeds in the intestines chiefly under the influence of the pancreatic juice, and is very complete under normal conditions, it is not wise to underestimate the saccharifying influence of mouth digestion. The significance of the action of the saliva is especially manifested in instances where it proves insufficient or is disturbed by some pathological factor. Thus, during the first months of infancy, when the secretion of ptyalin is very slight, starchy foods may provoke severe disorders, and also when hyperacidity of the gastric juice obtains, as a result of impeding the action of the ptyalin these foods are not properly manipulated. Therefore, starchy foods should be avoided during the first months of infancy, and likewise be restricted as much as possible when hyperacidity is present; but it is impossible to prolong such a regimen, as the hunger for carbohydrates becomes too urgent. In such and similar cases there is a natural desire to obtain a diastatic ferment which shall be less susceptible than ptyalin to the action of hydrochloric acid, and here Taka-Diastase answers a most excellent purpose, inasmuch as its action is extraordinarily rapid and complete, and not at all inferior to that of ptyalin. Leo of Bonn declares it is indicated when the production of saliva is deficient—thus, during the first months of infancy when starchy foods are desired on account of diarrhœa, etc.—and when the mouth is abnormally dry, as in fever, diabetes, contracted kidney, after severe diarrhœas, etc. As is well known, the mastication of starchy foods is greatly impeded in such instances, and the patients are frequently unable, on purely mechanical grounds, to force down the dry food. Moistening the mouth may overcome the difficulty in part, but much more is accomplished by administering Taka-Diastase at the same time; by formation of the soluble conversion-products, the starchy food is far more uniformly masticated, rendered more moist, and more readily swallowed; and further, the action of diastase is prolonged for quite a time in the stomach, certainly for a much greater period than that of the ptyalin. Consequently diastase is advantageously employed in certain diseases of the stomach, especially those complicated with abnormal secretion of acid; in pure hyperacidity, and the acidity that accompanies ulcus ventriculi.

POISONED BY EPSOM SALT.

Common "salts" are generally considered about as innocent as any remedy that can be administered, and so far as the effects are manifested in general, this belief is well borne out.

Recently, however, a case of poisoning by magnesium sulphate was reported in *The Lancet* (London) by Doctor Headley Neale, who states a lad aged fifteen took one ounce for the relief of constipation, and "thereupon became violently ill with vomiting, cyanosis, stupor and tetanic spasms, weak pulse and cold extremities." Under cardiac stimulants the patient recovered, but it is notable that no purgative effect was exercised.

Discussing this same case, the *Druggist Circular* remarks that in March, 1888, it reported a similar circumstance attended by fatality, and from a like dose, administered to a girl.

The question naturally arises whether death in each instance might not have been due to something besides Epsom salt. It is, of course, possible that some people are intolerant to this medicament, but after a very careful examination of medical literature we are unable to obtain any information which would lead to even a suspicion that it should

ever be toxic in any dose in which it is likely to be administered, under ordinary circumstances and in temperate climes. It is nowhere admitted that it can produce more than a small degree of depression—perhaps less depression than any drug with similar therapeutic properties,—although it has repeatedly been pointed out that this is the one medicament that should be avoided during the prevalence of cholera, because it is then apt to produce profuse and exhausting evacuations. Medical writers generally note that the natives and inhabitants of the tropics do not bear the administration of Epsom salt well, and that here it causes great depression, accompanied by excessive purgation.

To our mind, in both instances reported an examination of the drug itself should have been had, and it is more than probable that an error either in prescribing or in dispensing was made.

EDITORIAL NOTES.

Medical Epoch-makers.—

This is an age of medical epoch-makers. A positive insanity to be original has taken possession of a certain class of scientists, who, in the mad rush of competition, send out a tangle of untried, untested theories for the delectation and misguidance of the profession. Poor Truth has had her majestic proportions crowded into all sorts of fantastic garbs, a hump added here and a slice taken off there to suit the egotist's fancy, until her mutilated form is scarcely recognizable.—*Medical Brief.*

***

Some few months ago I read a paper by a surgeon on the subject of the Influence of Germs, and in the short space of a column and a half of an ordinary medical journal, he used in thirteen instances such phrases as "it is now fully established," "it is beyond dispute," "it must be universally acknowledged," "Smith has proved," "Jones' remarkable observations have established," and "as a complete result of Robinson's original researches we must believe," though in not a single instance would I, for one, admit anything in any one of the single assertions. It happens that those indicated as Smith, Jones, and Robinson, are three piquant contributors of papers on the application of the ever-advancing, ever-developing, ever-changing conclusions of the bacteriologists to the practical work of the surgeon, and such men, always anxious for second-hand novelties, forget in one week what they said the week before.—LAWSON TAIT.

Barbarian Practices.—

Under the title "Strange Remedy," the MEDICAL AGE cites the fact that fresh cow dung is still used in some parts of England as a poultice in cases of abscess of the breast, with the comment that "cow dung is an extremely efficient poultice, in spite of its inherent nastiness." *It is surprising that the editor of the* AGE *should also appear as an apostle of filth.—Indiana Medical Journal.*

It strikes us there is a large void between the statements of a *fact* and being an apostle of the same. Filthy practices in domestic medicine are as common in the United States as in England, especially among people possessed of little refinement, and cow dung poultices are by no means uncommon. Time and again the editor of the AGE has endeavored to prevent the use of this remedy, and suggested something equally as effective but more cleanly, though his advice was not always followed. That the domestic remedy when persisted in seems to "fill the bill" is not to be denied, and we cited the fact simply because of its oddity, and its value in its relation to Medical Anthropology.

But They Do!—

The *Medical Record* asks, "Shall Clergymen Advertise?"

This is not a matter of "shall," but of fact. They advertise themselves on all possible occasions—for such act is deemed an essential part of their calling,—from the pulpit, on the lecture platform, on the street, through the press, and are not as a rule averse to giving their names (for a consideration) to aid in bolstering up patent medicine nostrums. Any way to get prominently before the public.

Suicide in Europe.—

A recent statistician declares that 25,000 people of the Continent of Europe commit *felo de se* each year, not counting Russia, Scandinavia or the British Isles.

Items and News.

When?—

When the women all wear bloomers,
And their skirts are laid away;
When their legs are no more rumors,
Coyly hide from light of day;
When the petticoat's forgotten,
With its swishing, wishing swirls,
And there's less demand for cotton,
I'll be sorry for the girls.

I'll be sorry for the lasses
Who in school are at their books;
At the head or foot of classes—
I'll be sorry for their looks;
For their ma's will make their trousers,
And, good heaven! don't we know,
Who were boys, but now are grown-ups,
That they'll be a holy show.

It is bad enough when Willie
Weareth pants his mamma made,
And it often knocks you silly
Just to see the youthful blade
Wearing pants that no man knoweth
Which is front or which is back;
If he cometh or he goeth
There is quite an equal "slack."

But your Susie! Oh, 'tis galling;
Scalding tears will downward glance
When you hear the urchins calling:
"Say, where did you get those pants?"
You will see her, youthful, glowing,
But by no rule can you tell
If she is going or a-coming
From her daily school.

There'll be trouble, you'll allow sirs,
There'll be anguish for the pa's,
When their daughters will wear trousers
That are just revamped from ma's.
So I'm weeping as I'm writing,
And my great tears fall like pearls;
I scarce know what I'm inditing,
For I'm sorry for the girls.

—*Fresno Republican.*

Rearing Leeches.—

There has always been a good deal of mystery about the purpose for which large quantities of worn-out horses are annually shipped from England to France. It is now said that some years ago certain speculators made artificial swamps on the banks of the Garonne, and filled these swamps with leeches. To be profitable, these leeches must multiply themselves by millions, and hence must be liberally supplied with food. To meet this supply, old and worn-out horses are bought up, driven or dragged into the swamp, and cast into wooden compartments from whence they have no escape. They sink into the mud of these compartments, and the leeches fasten upon them by thousands; in a few moments they are black with crawling creatures, the blood-suckers attacking first the open wounds and galls. Bleeding from all their sensitive parts, the poor animals try vainly to shake off the leeches, and are at last sucked down into the noxious slime and seen no more. It is reported that nearly 200,000 horses are thus sacrificed annually at Bordeaux. It has been pointed out that leeches nourished on diseased horses are very likely to convey maladies into the human system.—*North American Journal of Homœopathy.*

A Warning against German Beer.—

The comparative harmlessness of beer as a drink has become an article of fixed popular belief. In Germany, as every one knows, the consumption of beer is no less universal than enormous; hence, a warning against that luxury coming from a German source has an almost startling effect. The other day, in addressing the Society for the Study of Inebriety, Professor von Bunge, a well known scientist, entered a solemn protest against his peculiarly national beverage, and particularly desired to "warn people against German beer, which is most dangerous, because it is the most seductive of drinks. German beer demoralizes both the individual and society." Such a downright condemnation of a national weakness must reduce the learned Professor's position in society when at home to that long ago described graphically as "a voice crying in the wilderness." We should like to see Prince Bismarck's face when reading his fellow-countryman's outspoken condemnation of German beer.—*Medical Press and Circular.*

The Metric System Plainly Stated.—

The American Association for the Advancement of Science declares that the following lines are all that is necessary for the physician to learn in order to prescribe in the metric system:

1000 milligrammes make one gramme:
1000 grammes or cubic centimeters make one kilo or litre:
65 milligrammes make one grain:
14½ grains make one gramme:
31 grammes make one Troy ounce.

Indian and European Beauty.—

Think of these ungainly, coarse-featured, beef-steak colored, rough-skinned, cat-eyed, red-haired, yellow-fanged, harsh-voiced "whites" turning up their noses at Aryan looks! There is more *true* beauty in a hamlet in Aryan India than in the whole of Teutonic Europe.—*Lahore Tribune.*

Book Reviews.

ANCIENT CIVILIZATIONS. By George Shelley Hughs. Cloth; 8vo; pp. 440 Published by the Author, Des Moines, Iowa.

This is a work on Christian civilization which attempts to connect all peoples and their history, and work out an intelligent theory of natural or divine law of successive migrations and civilizations. The ideas of the author are unmistakably original, and while many will not agree with him in all his premises, there is much which is worthy of careful consideration and thought. It is impossible to enumerate a tithe of the interesting and absorbing topics upon which the foundation principles of the volume are builded, but the author traces the infancy of civilization, gives the theory and traditions of astronomers and geologists, and delves into the musty past, finding a deal of material that has too often been ignored, or at best but hastily skimmed over. His proposition that civilizations after civilizations have grown and faded away —that civilization is a continual growth and decay, and that everything is to-day better or worse than it was yesterday—is undoubtedly correct. He realizes what few authors have accepted, that the earth has been the seat of civilizations altogether forgotten and past, and of which comparatively nothing is known, since our present knowledge is based upon the few mortuary remnants and relics that are turned up here and there. We are somewhat surprised, however, to discover that Mr. Hughs has made no mention, and is apparently unaware of the former existence, of a civilization in the central portion of the Western continent, which manifestly antedates that of Egypt, and perhaps is the derivative of the latter.

FONTENAY THE SWORDSMAN. By Fortuné du Boysgobey. Cloth; 12mo; pp. 325. Price, $1.25. Rand, McNally & Co., Chicago and New York.

This is one of the historical French novels, and has been admirably translated by Mr H. L. Williams. It deals with the times of Napoleon and the Spanish campaign, and though of course there is a love-tale at the bottom, it gives a good insight into the efforts of the Spaniards to avoid being brought under Napoleon's yoke. Incidentally there is a good character study of Fouché, of Napoleon himself, and Lannes, Murat, and the guerrilla leaders.

Any one at all interested in Napoleonic history will find this novel of entrancing interest.

BACTERIA OF THE SPUTA AND CRYPTOGAMIC FLORA OF THE MOUTH. By Filandro Vicentini, M.D. Translated by Rev. E. J. Stutter and Prof. E. Saieghi. Cloth; 8vo; pp. 239. Price, 7s. 6d. Bailliere, Tindall & Cox, London.

To the botanist, bacteriologist, and pathologist, no less than to the dental surgeon, the bacteria of the oral cavity offer a fertile field of investigation, and present many questions, the solutions of which are now for the first time systematically attempted. Therefore, this work is worthy of careful and critical study, though many will not uphold the author in all his conclusions, particularly as free acceptance thereof will necessitate a complete revolution of the views adopted by bacteriologists. One thing notable in Vicentini's conclusions is that all bacteria found in the human mouth, and likewise the so-called pneumococcus, bacillus tuberculosis, and gonococcus, are simply derivatives of one normal organism.

THE LIVING AGE. Price, $6.00 per year. The Living Age Company, Boston.

Littell's *Living Age* has never needed any "new features" to commend it to the best class of readers, yet it must be conceded that the additions recently made are real improvements. Without yielding a particle of its old conservatism, adhering as strictly as ever to its purpose to admit nothing but the choicest selections to its columns, it has shown a wise judgment in entering new fields, thus extending its scope and increasing its usefulness. Late issues have been enriched by many valuable productions, selected not from the British press alone, but embracing translations from leading Continental authorities, including Emilio Castelar in a review of the Spanish-Cuban relations, a paper on de Goncourt, and a discussion of "Political Ideals and Realities in Spain;" Jules Lemaitre on a "Modern Morality;" Alfred Fouille in "As Others See Us," and Anatole le Braz in "All Souls' Eve in Lower Brittany." In fiction may be mentioned a serial by the eminent Russian novelist, Ivan Tourgenieff, and a short story from the Norwegian of Alexander L. Kielland. Besides these translations, made expressly for *The Living Age*, the numbers contain the usual rich and varied selections from the British periodicals, full of interest and worthy of permanent preservation, such as "Young Turkey," by Karl Blind; "The Progress of Mankind," by Elisee Reclus; "Robert Louis Stevenson," by Lord Rosebery; "The House of Lords as a Court of Appeal," by Michael MacDonagh; "The Political New Year," by E. J. Dillon; and "Some Recollections of Carlyle's Talk," by William Black.

In addition to all this is a Monthly Supplement containing Selections from American Magazines, Readings from New Books, and a List of the Books of the Month.

ST. NICHOLAS. Price, 25 cents; $3.00 per year. The Century Co., New York.

Contents for March: "Teddy Baird's Luck," by Kate D. Sweetser; "The Last Three Soldiers" (IX), by W. H. Shelton; "Master Skylark (XV–XVI), by John Bennett; "Jed's Windmill," by Grace W. Curran; "Animal Tracks in the Snow," by B. H. Standish; "June's Garden" (conclusion). by Marion Hill; "Harbor Defenses," by C. R. Thurston; "Miss Nina Barrow" (III–IV), by Frances C. Baylor; "A Boy I Knew" (conclusion), by Laurence Hutton; "Some Queer Craft," by Gustav Kobbé; "How a President is Inaugurated," by Clifford Howard; "Johnny in Gobolink Land," by Ruth McEnery Stuart and A. B. Paine; "A Fortune," by L. E. R.; "The True Story of Marco Polo" (XVII–XVIII), by

Noah Brooks; "A Century of Presidents," by Mary Seymour; "All in the Winter Weather," by Grace Winthrop. There are the usual departments.

THE YOUTH'S COMPANION. Price, $1.75 per year. Perry Mason & Company, Boston.

This old and well tried friend celebrates its seventy-first birthday this year. Among the attractive announcements for the coming year is an article by Mr. Andrew Carnegie on "The Habit of Thrift." Successful men in other walks of life will second Mr. Carnegie's paper with readable, practical articles. The non-partisan editorials, the "Current Events" and "Nature and Science" departments are of special benefit to those who wish to keep informed of the world's progress. Of course there will be the usual high-class fiction. New subscribers will not only receive the paper for a year, but also a very beautiful Calendar, printed in twelve colors. The illustrated prospectus of the current volume may be had on application.

THE BADMINTON MAGAZINE. Price, 30 cents; $3.50 per year. Longmans, Green & Co., New York.

In the February number A. G. Bradley writes of "Father O'Toole;" "From an Undergraduate's Note-book" is by H. B. M. Coutts; "The Ladies' Cycle Club," by James F. Sullivan; "A Pheasant Farm," by C. J. Boyle; "Duck Shooting in Utah," by Basil Tozer; "The Grey Stag of Corrievean," by Percy Stephens; "Racing in the South American Pampas," by W. H. Voules; "The Gannets of the Bass," by Horace Hutchinson; "Running," by W. B. Thomas; "Pig Shooting in Albania," by Barbara Hughes. There are also the usual "Notes by 'Rapier.'" The illustrations are by H. M. Brock, G. H. Jalland, J. F. Sullivan, A. Thorburn, F. S. Wilson, E. Caldwell, and A. De Bree.

THE ATLANTIC MONTHLY. Price, 35 cents; $4.00 per year. Houghton, Mifflin & Co., Boston.

The March issue opens with an article by John Fiske on "The Arbitration Treaty;" Woodrow Wilson writes of "Mr. Cleveland as President;" Arthur T. Hadley of "The Good and the Evil of Industrial Combination;" "Legislative Shortcomings" is by F. C. Lowell; "Cheerful Yesterdays," by Thomas W. Higginson; "My Sixty Days in Greece" (II), by B. L. Gildersleeve; "Venus in the Light of Recent Discoveries," by Percival Lowell; "The Rational Study of the Classics," by Irving Babbitt; "Marigold-Michel," by Blanche W. Howard; "The Juggler" (VI), by Charles Egbert Craddock; "The Story of an Untold Love," by Paul L. Ford.

DONAHOE'S MAGAZINE. Price, 25 cents; $2.00 per year. Donahoe Magazine Co., Boston.

The current issue presents a paper on "Presidential Inaugurations," by T. F. Benton; "Two Under Dogs," by Blanch McCarthy; "Newfoundland in Her Four Hundredth Year," by Rev. J. O'Reilly; "A Land Leaguer's Christmas," by P. J. Lynch; "The Transition of a Historic Order," by M. R. Taylor; "The Ballad Poetry of Ireland," by Rev. William Dollard. There are likewise the usual tales, poetry, and departments. The illustrations of the number are of an exceptionally high order.

THE CENTURY. Price, 35 cents; $4.00 per year. The Century Co., New York.

The March issue contains: "Our Fellow Citizen of the White House," by C. C. Buel; "Hugh Wynne, Free Quaker" (V), by S. Weir Mitchell; "The Nation's Library," by A. R. Spofford; "The Decorations of the New Congressional Library," by W. A. Coffin; "Campaigning with Grant" (V), by Horace Porter; "The Man Who Worked for Collister," by Mary T. Earle; "Inauguration Scenes and Incidents," by J. B. Bishop; "Nelson at Trafalgar," by A. T. Mahan; "Our Witch," by R. M. Johnston; "The Art of Large Giving," by George Iles; "Some Writers of Good Letters," by Royal Cortissoz. There are the usual departments.

GODEY'S MAGAZINE. Price, 10 cents; $1.00 per year. The Godey Company, New York.

The leading article in the March issue on "Pastime Photography" shows what pleasing work can be done by a skilful use of the camera. "Modern Art in Piano Building" and "Dresden Opera" will interest musical people; "Handsome Newspaper Women" is by Helen Winslow; "The Separatist Preacher," by May K. Champion; "Cupid and Pegasus," by Jean Meyers; "Ugo," by Clara S. Ross; "Among the Ferns," by Charles F. Saunders; "Standard Time and Time Tables," by a railroad man. There is also an article on "Decadence of Negro Minstrelsy," and the usual departments.

THE AMERICAN NATURALIST. Price, 35 cents; $4.00 per year. The Edwards & Docker Co., Philadelphia.

The contents of the current issue are: "Nocturnal Protective Coloration of Mammals, Birds, Fishes, Insects, etc.," by A. E. Verrill; "The Inferior Boundary of the Quaternary Era," by Oscar H. Hershey; "The Pocket or Pouched Gopher," by Clement L. Webster; "Photographing Cedar Birds," by R. W. Shufeldt; "Bacterial Diseases of Plants" (continued), by Erwin F. Smith. There are the usual Editor's Table, Review of Recent Literature, and General Notes on Petrography, Botany, Zoology, Entomology, Embryology, etc.

ARCHITECTURE AND BUILDING. Price, 10 cents; $4.00 per year. William T. Comstock, New York.

The issue of February 13th treats of "The Great Mosque of the Omeiyades, Damascus;" "Syracuse Museum of Fine Arts;" "The Academy's New Home;" "College Matters;" "In Streets and Papers;" "A Plea for the Use of Natural Forms Revealed by the Microscope as Suggestions for Architectural Enrichments;" "Editorial Notes and Comments," etc.

VICK'S FLORAL GUIDE. James Vick's Sons, Rochester, New York.

Again this annual comes to our table with its beautiful illustrations and complete catalogue of flowers, and flower and vegetable seeds. Among the new novelties introduced for 1897 we note the "Daybreak Aster," the "Laura Vick Carnation," and the "Gold Flower." We ever welcome this volume, for it is always an epitome of general horticultural and floricultural information.

Therapeutic Brevities.

Chian Turpentine as a Hæmostatic.—Chian turpentine has been successfully used for arresting hæmorrhage in cases of cancer of the breast and uterus. I have given it a fair trial in a good many cases, and found it very useful in nearly every form of internal hæmorrhage. In a case of hæmoptysis I gave ten grains at once and then ordered five grains thrice daily. The hæmorrhage was effectually stopped that same day, while on former occasions it had lasted three and four days. I gave him the same treatment on two other occasions with similar satisfactory results. I gave it also to a lady, a multipara, suffering from severe postpartum hæmorrhage; two ten-grain doses were sufficient; there was no recurrence. I tried it in the case of an old lady with cancer of the cervix uteri, which bled profusely about once a month for nearly a year. I ordered ten grains thrice a day for a week, then five grains four times a day for the next week, and lastly five grains twice daily till the end of a month, and found that for nearly seven months there was not the slightest sign of hæmorrhage. I gave ten grains every four hours to a patient suffering from hæmoptysis due to a liver abscess bursting into the right lung. I succeeded in arresting the hæmorrhage, which ergot hypodermatically injected had failed to affect.

I gave the turpentine a fifth trial in a case of sloughing cancer of the breast. This patient, an old Mahomedan woman, had ten grains thrice a day and the hæmorrhage and pain both ceased. The hæmorrhage came on again after some days, and on several occasions after that, and the turpentine being used each time was found very effectual. I also tried it in a case of epistaxis in a "bleeder" and even here met with success. Then I tried it in several cases in internal hæmorrhage and was always more or less satisfied with the results. I moreover found that in painful cancers, uterine and mammary, it acted as an anodyne, the patients themselves ascribing their relief to it.

I think Chian turpentine ought to be given a fair trial as a hæmostatic and an anodyne to relieve the temporary sufferings and anxiety of many an unhappy patient, if nothing more.—J. V. James, in *Indian Medical Record.*

The Abuse of Drugs.—Look over the prescription files in drug stores, and compare the prescriptions written five years ago with those written now for the same diseases, and two facts will be recognized: First, that medical men are following the advice of manufacturing chemists in prescribing their special preparations periodically as they are brought to their notice: That many drugs once regarded as specifics have been abandoned, and no one knows why. The diseases have the same symptoms; their pathology is the same, and they run the same course; therefore, the change must be in the remedies used, and not in the diseases treated. Evidently there is some cause for this fact. Before giving any drug, the physician, after making sure of his diagnosis, should have a clear conception of its physiological action; and then, beginning with a small dose, give until its known physiological effect is produced. So, then, when the diagnosis is made and the drug selected, give it full time to produce its effect before changing to some other remedy.

A common abuse of drugs is giving too many at the same time. It is certainly bad practice to give sedatives, purgatives, narcotics and stimulants simultaneously, or within a few hours of each other. In every disease there are one or more prominent symptoms to be treated that have a great many minor ones depending upon them, which will disappear as soon as the cause is removed. One cardinal rule in prescribing drugs is: Keep the bowels and kidneys, the great sewer system of the body, open and active. It is well to remember that the human body has a certain amount of what is called reserved force, and that the tendency of the diseased body is to get well; therefore, always be on guard and do nothing to hinder or retard that tendency. At the same time, it is well not to forget that man is mortal and sooner or later must die, and women and children are no exception to the rule.—Graham.

Castration for Enlarged Prostate.—Castration induces atrophy of the enlarged prostate, on account of the loss of a physiological substance formed by the testicles which is essential to the nutrition of the gland:

Atrophy occurs most readily in the soft and elastic form of hypertrophy; but it may also take place in the hard variety, even when this is associated with general arteriosclerosis:

The best effect is obtained when there is general enlargement of the gland. Sessile enlargement of the median portion may yield to castration; but intravesical outgrowths are, as a rule, more suited for prostatectomy:

Cystitis, when not far advanced, may be relieved, or cured:

High grades of cystitis, associated with septic infection of the kidneys, and with distressing bladder symptoms, are benefited most by drainage of the bladder:

Vesical contractility may be restored only after years of complete catheterism:

Although voluntary power does not return, castration may still bring relief if catheterism has been frequent, painful and difficult:

With the exception mentioned, castration will give as good results as prostatectomy, with the additional advantage of a smaller death-rate:

Resection of vas deferens acts more slowly than castration in reducing hypertrophy of the prostate:

Double resection of the vas deferens is a simpler operation, would be more readily assented to by the patient, and could therefore be recommended earlier. — MacEwan.

Why Doctors Make Mistakes.—Because they are not sufficiently individual in their diagnosis or their treatment. They class a sick man under some given department of their nosology, whereas every invalid is really a special case, a unique example. How is it possible that so coarse a method of sifting should produce judicious therapeutics? Every illness is a factor simple or complex, which is multiplied by a second factor, invariably complex—the individual, that is to say, who is suffering from it—so that the result is a special problem, demanding a special solution, the more so the greater the remoteness of the patient from childhood or from country life. The principal grievance against doctors is that they neglect the real problem, which is to seize the unity of the individual who claims their care. Their methods of investigation are far too elementary; a doctor who does not read you to the bottom is ignorant of essentials. The ideal doctor is a man endowed with profound knowledge of life and of the soul, intuitively divining any suffering or disorder of whatever kind, and restoring peace by his mere presence. Such a doctor is possible, but the greater number of them lack the higher and inner life; they know nothing of the transcendent laboratories of nature; they are superficial, profane, strangers to divine things, destitute of intuition and sympathy. The model doctor should be at once a genius, a saint, a man of God.—*Amiel's Journal.*

Sterility of Females.—There are few drugs which exhibit so pronounced a predilection to act upon certain structures of the body as belladonna. Among its favorite tissues, those of the female sexual organs may be mentioned; its employment is followed by more or less benefit in every disease to which these parts are liable. It has fallen to the lot of almost every practitioner to be consulted by married women as to the cause of their barrenness, though they enjoy the best of health, and have never suffered from any irregularity of the sexual apparatus. To such on many occasions belladonna internally proves a boon, and after some weeks they become pregnant. This happens so often that I am constrained to regard the occurrence as something more than accidental. I do not venture to theorize upon the action of belladonna in such cases, but merely mention that I have observed the external genitalia become more relaxed, and the os and cervix uteri somewhat softened and pliable.—John Harris Jones, in *New York Medical Journal.*

Cycling and Heart Disease.—The chief danger of cycling lies in the fact that a cyclist takes much more exercise than he is aware of or than he intends to, and is frequently tempted to overtax his powers. This overtaxing of strength may accompany efforts to reach a given point as laid down in plans for the day, or as is made necessary by certain exigencies. More frequently, however, the extra exertion is put forth in hill-climbing. In this latter case the heart has already as much strain put upon it as it can stand with impunity; but a glance shows the rider that but a few more turns of the wheel will bring him to the top, and he redoubles his exertions, and the mischief is done. In club-runs, again, while the start is made to correspond with the pace of the slowest riders, the faster riders unconsciously quicken their pace, and the slower ones must follow at a rate entirely beyond their capacity or be left behind. Riding with a high gear is a further source of overtaxing the strength. — Herschell, in *The Lancet* (London).

Influence of Baths upon Menses.—Saline or mud baths, at 25°, 27°, or 28° C., have a favorable influence on menstruation from the point of view of pain, the quantity of blood lost, and the duration of the flow. Alkaline baths, at 27° or 28° C., taken during the menstrual period by patients suffering from gynæcological troubles, act as an excellent sedative; the quantity of blood lost is not affected, or perhaps slightly diminished. In affections of the uterine appendages the menses are often increased in frequency, as also quantity of blood lost. Patients are

afraid to use hot baths during this period for fear of increasing the flow, or perhaps bringing on severe hæmorrhage, but they do not increase the quantity of blood lost—on the contrary often diminish it; at the same time, they soothe the pain accompanying inflammatory affections of the genitals. They are therefore of real benefit, not only between the periods, but during the flow.—*Canadian Practitioner.*

Whooping-Cough.—

℞ Bromoform, 48 minims.
Oil sweet almond, 20 grammes.
Gum tragacanth, 2 grammes.
Gum Arabic, 4 grammes.
Cherry-laurel water, 4 grammes.
Distilled water to make 120 grammes.

A teaspoonful contains two drops of bromoform. Children under six months are given two to three drops daily to begin with; from six months to one year, three to four drops—divided in three doses.

—*Pediatrics.*

***

Pertussis has been successfully treated for fifteen years by Josset with the aid of hypersulphurous baths, seventy-five centigrammes of polysulphate of potassium per litre being employed. The temperature of the bath should be 36° C., and the duration twenty-five to forty-five minutes, according to the age. Fifteen baths are, at most, required.—*La Médecine Moderne.*

Varicose Veins.—One hundred and sixty-four cases of varices without a single failure have been treated by means of hypodermatic injections, eight drops at a dose, into one of the principal varicose confluents, of a solution containing iodine and tannin, one and nine parts respectively; the operation should be performed without anæsthesia, and repeated when necessary, the patient meantime standing, a rubber tube having been placed at the root of the thigh. By this operation a hypertrophic phlebitis is brought on, with thickening of the venous walls, and consequent resistance to dilatation. After operation the veins are compressed ten centimeters above and below the puncture, the limb wrapped in boric-acid cotton, and the patient kept rigorously on his back in bed. The possibility of embolism is purely theoretical and not borne out by facts.—*Nice-Médical.*

Neglected Drugs.—Of the analysis of 27,000 prescriptions, recently made by Mr. Patch, President of the American Pharmaceutical Association, it was shown that the pharmacopœia was sadly neglected by physicians. Only seventeen vegetable drugs were prescribed, and more than one hundred drugs of vegetable origin neglected. Ten metals were honored, but more than ten were left out in the cold. In the study of 217,000 prescriptions from nineteen drug stores distributed in Chicago, Philadelphia, Bayonne, New York, Boston, Washington, Baltimore, Denver, San Francisco, New Orleans, Cincinnati and St. Louis, 11.25 per cent. were proprietary articles, not including many elixirs, pills, tablets, fluid extracts, etc., which were of specified manufacture.—*Scientific American.*

Blisters.—There have been many protests against Huchard's sweeping denunciation of blisters. Matthieu asserts that in hydrarthrosis a cantharides blister is invaluable, and he also uses this application in gastralgia, on a space the size of a five-franc piece. Adrian thinks that if the substance be applied in the form of chloroform solution, with a little squill, no bad results will follow, such as may be attributed to the use of plasters that leave some of the irritant on the skin. In veterinary practice the blister is of the greatest service. All seem to agree that it is worse than useless in broncho-pneumonia, kidney and cardiac troubles, and for children and elderly persons.—*Medical Bulletin.*

Ménière's Disease and Pilocarpine.—A man aged twenty-nine, afflicted with otorrhœa and symptoms of tuberculosis, suddenly started to vomit, then became deaf with vertical vertigo, but did not lose consciousness. The vertigo persisted for several days, and the murmur in the ears became very intense; there was anchylosis of the ossicles. He was ordered one-fifteenth of a grain of pilocarpine hypodermatically the first day, reduced to one-sixtieth the second day. After ten days the vertigo disappeared, but returned, when treatment was recommenced and continued for thirty days, when all disagreeable symptoms had permanently disappeared.—*Annales des Maladies de l'Oreille.*

Singultus.—A young girl suffered for four days without cessation from singultus, about thirty spasms to the minute. She was not hysterical, but the attack was apparently due to some gastric disorder. When the patient put out her tongue for about a minute, it was found that during this time the singultus ceased. She was then ordered to stick out her tongue forcibly for a few minutes. When the tongue was returned into the mouth only

a few slight spasms followed, and a few minutes later the singultus ceased altogether, and did not again return. It would, therefore, be proper to try the continuous or rhythmic traction of the tongue in these cases.—*Revue de Thérapeutique.*

Nymphomania.—Always search carefully for local causes, such as vaginitis, vegetations, vulvitis, eczema, syphilis, and herpes; investigate especially as to diabetes. Where nervous disorders are suspected, bromides in medium dose are indicated; when associated with opium they combat in an effective manner the exaltation of the venereal appetite. Camphor may be added, and when insomnia coexists, chloral is to be given at night. Local applications are useful; cocaine in lotion has preference. Hydrotherapy is indicated in all cases. When scientific douchings are not possible, applications of cold water to the vertebral column at bedtime are beneficial.—LUTAUD.

Swallowing of Foreign Bodies.—Pins, safety-pins, pebbles, jackstones, etc., swallowed by children need occasion no alarm, as they will all pass through without harming the child; the greatest danger is from the castor oil with which the child is usually dosed in such cases. It is always better to leave the bowels at rest and give gruel, crackers, baked potatoes, milk, anything which will constipate the child and make a pultaceous mass in which the foreign bodies will be imbedded and carried through. When foreign bodies stick in the throat and the child is unable to swallow, it should receive an emetic, or the coin-catcher should be introduced. — *American Medico-Surgical Bulletin.*

Gonorrhœa.—Werler reports excellent results with silver citrate in the treatment of a large number of cases of acute and chronic urethritis. In acute cases he employs a solution of twenty-five milligrammes in 200 grammes of distilled water, injected four times daily. This solution is followed by one of increasing strength until five centigrammes to 200 grammes of water is reached. The salt exerts an action greater than that possessed by the silver nitrate, and is much less irritating.—*Medicine.*

Ipecac in Gall-stone Pains.—A blacksmith who had suffered from these attacks for two years was so much reduced in strength that he was obliged to give up all work and keep to his room. I advised ipecac in small doses, and he had only one attack subsequently. Another case treated in the same way sent me word, more than a year afterward, that it "did the work."

I might mention other cases, but the above are enough. With me ipecac has always worked promptly, leaving no unpleasant after-effect.—Correspondent of *Homœopathic News.*

Foreign Bodies in Eye.—Foreign bodies in the conjunctival sac or cornea produce such an intense amount of irritation that their immediate removal is generally demanded, and in the majority of cases this may be readily accomplished after instilling a few drops of a four-per-cent. solution of cocaine. A clean piece of blotting paper will often suffice as an instrument, or a small stick of wood whittled to a broad, flat point. After removal, a soothing lotion should be applied.—*Richmond Journal of Practice.*

Chronic Cystitis.—Rhus aromatica, ammonia muriate and citrate of potash, combined, do well, but the dose of the ammonia salt must be large to be of real and lasting benefit. I find most benefit when I add citrate of potash to the prescription, as it acts on the kidneys and on the urine, rendering the latter alkaline. I advise, in cystitis, always to make the urine alkaline by administering a potash salt combined with a vegetable acid, citrate, acetate, tartrate.—JOSEPH ADOLPHUS.

Extension of Radial Nerve.—An alcoholic, forty-eight years old, in consequence of a fall suffered from paralysis of the radial nerve. After the condition had existed for two months, extension of the paralyzed nerve was practiced, and on the following day sensibility had returned to the previously anæsthetic parts. Gradually motor power also returned to the paralyzed member, and in the course of ten days recovery was complete.—*La Semaine Médicale.*

Warty Growths on Genitals.—These, especially in the male, are always to be suspected of malignancy, no matter how innocent they seem; they should either be left entirely alone, or be thoroughly removed by knife or cautery; imperfect attempts at destruction are especially to be avoided, there being many cases recorded in which they have apparently stimulated a benign growth into malignant action.—GOTTHEIL.

Medical Progress.

Old-time Remedies.—In this age and generation, physicians, and especially the younger branch of the profession, are apt to believe that what they don't know about materia medica and therapeutics is not worth knowing. In the dark age of the eighteenth century, however, remedies were in use which put to shame our vaunted erudition. In a little-known English book which has lately fallen into our hands are a number of aids to treatment of which the physicians of to-day are ignorant and by means of which they may place themselves on a higher therapeutic plane. It would undoubtedly produce a lasting effect upon patients to persuade them that they were suffering from the remarkable diseases mentioned in this book, and if, unfortunately, the diseases proved incurable, what a blessed and aristocratic privilege and solace it would be to the sorrowing relatives to reflect that the deceased had so unique a disease as "Glim'ring of the Gizzard," for instance.

From this work the following interesting and practical excerpts are taken:

A man who lived at the Three Compasses in Maiden Lane issued a handbill that he "would infallibly cure several strange diseases, which (though as yet not known to the world) he will plainly demonstrate to any Ingenious Artist to be the greatest Causes of the most common Distempers incident to the Body of Man, the Names of which are as follows: The Strong Fives, The Marthambles, The Moon Pall, The Hockogrocle."

In Surrey-Street, in the Strand, at the Corner House with a White-Balcony and Blue-Flower pots, liveth a Gentlewoman, who Hath a most excellent Wash to beautifie the Face, which cures all Redness, Flushings, or Pimples. Takes off any Yellowness, Morpheu, Sunburn, or Spots on the Skin, and takes away Wrinckles and Driness, caused too often by Mercurial Poysonous Washes, rendring the worst of Faces fair and tender, and preserves 'em so. You may have from half a Crown to five Pound a Bottle. You may also have Night Masks, Forehead Pieces, incomparable white-pots, and Red Pomatum for the lips, which keeps them all the Year plump and smooth, and of a delicate, natural colour. . . . Also a Water to Wash the Mouth, which prevents the Scurvy in the Gums and cures where 'tis already come. . . . She has also a most excellent Secret to prevent the Hair from falling, causing it to grow where it is wanting in any part of the Head. She also shapes the Eye-brows, making them perfectly beautiful, without any pain, and raises low Foreheads as high as you please. And colours Grey or Red Hair to a lovely Brown, which never decays, changes, or smoots the Linnen. She has excellent Cosmeticks to anoint the Face after the Small Pox, which wears out any Scars, Marks, or Redness; and has great skill in all manner of sore Eyes. She has a most excellent Dyet Drink, which cures the worst of Consumptions, or any Impurity of the Blood; And an Antiscorbutick spirit, which, being taken one spoonful in the Morning, and another at Night, with moderate Exercise, cures the Scurvy, tho' never so far gone, and all broke out in Blotches; with many other Secrets in Physick, which you may be satisfied in when you speak with her.

In 1739, the English people, by Act of Parliament, agreed to pay, to Joanna Stevens £5000 for the following Remedy used in a painful disease: (A committee of 20 scientists investigated her medicines, and reported favorably on them.) A powder made of egg shells and snails, both burnt; a draught made of Alicante soap, swine's cresses burnt, and honey. This was made into a ball, which was afterwards sliced and dissolved in a broth composed of green camomile, or camomile flowers, sweet fennel, parsley, and burdock leaves, boiled in water and sweetened with honey; a pill compounded of snails, wild carrot seeds, burdock seeds, ashen keys, hips and haws, all burnt to blackness, and then mixed with Alicante soap.

A very nutritious and proper restorative food (taken from the London Dispensatory): Take a middle-sized viper, freed from head, skin, and intestines, and two pints of water. Boil them to a pint and a half; then remove the vessel from the fire; and when the liquor is grown cold, let the fat (which congeals upon the surface, if the viper was fresh) be taken off. Into this broth, whilst warm, put a pullet of a moderate size, drawn and freed from the skin and all the fat, but with the flesh intire. Set the vessel on the fire again, that the liquor may boil; then remove it from the fire, take out the chicken and chop its flesh into little pieces; put them into the liquor again, set it over the fire, and as soon as it boils up pour out the broth, first carefully taking off the scum. Of this broth let the patient take half a pint every morning, at two of the clock in the afternoon, and at supper-time.

For Cancer, take of live wood-lice, one ounce; fine sugar, two drams; a little powder of nutmeg, and half a pint of alexeterial water. Let the wood-lice and sugar, with the nutmeg, be ground together in a marble mortar, then gradually add the water, which being well mixed, strain it with hard pressing. Two ounces of this expression are to be taken twice a day, shaking the vessel, so that no part of it may be lost

For Gunshot Wounds, take of comfrey leaves and root, sage, mugwort, bugloss, each four handfulls; betony, sanicle, ox-eye daisy, common daisy, greater figwort, plantane, agrimony, vervain, wormwood, fennel, each two handfulls; St. John's wort, birthwort, orpine veronica, lesser centaury, milfoil, tobacco, mouse-ear, mint, hyssop, each one handfull; wine, 24 pounds. Having cut and bruised the herbs, pour on them the wine, and let them stand together in heat for three days; afterwards distill in an alembic with a moderate fire. This celebrated water has for some time been held in great esteem, in contusions, for resolving coagulated blood, discussing the tumors that arise on fractures and dislocations, for preventing the progress of gangrenes, and cleansing and healing ulcers and wounds. . . .

Amongst the empyrical medicines the following is much cried up by many people as an infallible remedy: Take two ounces of the worts that grow dangling to the hinder heels of a stone horse, wash them in common water, then infuse them in white wine all night, and afterwards let them be dried, and reduced to powder. The dose is half a dram twice a day, in any proper vehicle. A dram of Venice soap given twice a day, either in pills or dissolved in some proper liquor, is likewise said to cure a Cancer.

Salvator Winter, an Italian of the City of Naples, Aged 98 years. Yet, by the Blessing of God, finds himself in health, and as strong as anyone of Fifty . . . Which first he attributes to God, and then to his Elixir Vitæ, which he always carries in his pocket adayes, and at Night under his pillow; And when he finds himself distempered, he taketh a Spoonful or two, according as need requireth . . . Warranted to cure every evil under the sun, such as catarrhs, sore eyes, hardness of hearing, toothache, sore throat, consumption, obstructions in the stomach, etc. . . . Salvator Winter, Junior, says: My father, aged 98 years, yet enjoys his perfect health, which . . . he attributes to the Elixir Vitæ, having alway a bottle of it in his pocket, drinking a spoonful thereof four or five times a day; snuffing it very strongly up his Nostrils, and bathing his Temples; thus by prevention, he fortifies his vital Spirit.

At the Sign of the Blew-Ball, at the upper end of Labour, in vain-Street, next Shadwell-New-Market, Liveth a Seventh Daughter, who learn'd her Skill by one of the ablest Physicians in England (her uncle was one of K. Charles's and K James's twelve Doctors), who resolves all manner of Questions, and interprets Dreams to admiration, and hath never fail'd (with God's Blessing) what she took in hand.

The Woman's Prophecy, or the Rare and Wonderful Doctress, foretelling a Thousand strange monstrous things that shall come to pass before New Year's day next, or afterwards. She likewise undertakes to cure the most desperate Diseases, as the Glim'ring of the Gizzard, the Quavering of the Kidneys, the Wambling Trot, &c.

—*Medical Standard.*

Impregnation Without Penetration.—A healthy looking girl, aged sixteen, recently attended the West London Hospital complaining that she had not menstruated for nearly five months. She was tall for her age, of bright complexion, with no trace of anæmia; breasts prominent and tense; areolæ pigmented; mucoid secretion easily expressed from both nipples; abdomen full, but not markedly prominent. On palpation an elastic tumor was felt rising above the pubes nearly to the navel that did not harden on manipulation; it was dull on percussion, dumb on auscultation; no fœtal parts could be felt. The external genitals were well developed; the inner surfaces of the labia presented a distinct violet coloration; hymen intact; hymeneal orifice small, admitting extreme tip of the finger, but when the finger was passed further, the margin of the hymen was put tightly on the stretch, and though not at all neurotic, she experienced so much pain that the examination was completed with difficulty. The cervix was soft—no fœtal part could be felt; bimanually the abdominal tumer moved and seemed to be continuous with the cervix, and it seemed almost certain it was the body of the uterus. No positive opinion was given.

A month later the patient was again examined. The abdominal tumor had extended above the navel, but showed no contractions and still remained dumb to most careful auscultation. But now the outline of the fœtus, fœtal parts and fœtal movements could be felt. The hymeneal orifice was as small as on the previous occasion, and the vaginal examination again caused much pain. There was no longer any reason to refrain from giving a positive opinion. The patient, who appeared to be much distressed, stated that pregnancy could not have taken place, for though coition had once been attempted, by a man several years older than herself, she experienced much pain, penetration had not occurred, and the semen had been deposited only on the external genitals and her clothing.

Penetration does not always rupture the hymen; it will sometimes dilate with the greatest ease to admit two and even three fingers without rupturing or causing the slightest pain. But this case was very different. One finger passed with difficulty, putting the hymeneal orifice tightly on the stretch and causing great pain, and two fingers would certainly have resulted in rupture.—*Medical Press and Circular.*

[A case of impregnation following imperfect coitus was recently reported in the *Buffalo Medical and Surgical Journal* by Doctor Himmelbach.—Ed.]

Carcinoma of Cervix in a Young Girl.—May 15th, 1895, I was called to see Leila N——, aged fourteen; she was anæmic, had little appetite, and every month complained of headache, backache, and general languor. She was treated for chlorosis, when the symptoms soon began to yield, and menstruation set in. Soon after she suffered from menorrhagia and dysmenorrhœa; then leucorrhœa, the discharge gradually becoming tinged with blood. An examination was refused. Later she was taken with severe menorrhagia, and the physician called. He diagnosed "polypus." Later I found some growth, and became suspicious of cancer, because of ichorous and fœtid character of the leucorrhœa, and ultimately this was definitely proved. Because of extensive adhesions involving cervix uteri, vaginal walls, and surrounding tissues, I did not operate. Soon the tissues began to break down from ulceration; the discharge was greater and more characteristic, the rectal walls becoming implicated; the patient lost control of bowels, and the constitutional debility became more marked. She died eighteen

months after I first saw her. This is the youngest case on record, the most fruitful age being from forty to fifty years. Sconzoni's youngest case was twenty-three years old, in which there was no family history of cancer, neither was there any evidence of contusion or other cause.—W. L. Little, in *New Orleans Medical and Surgical Journal.*

Simplicity in Medication.—With all the credit due to pharmaceutical chemistry, and all our obligations to it, I doubt whether in one chief respect it has not done some harm. To bring many important remedies together, and unite them by a lucky combination, and compress within a small compass, gives a facility of prescribing which is hurtful to the advance of medical experience. The facility of prescribing is a temptation to prescribe, and under this temptation there is a lavish expenditure continually going on of important remedies in the mass, of which the prescribers have made no sufficient experiment in detail. A simple drug or two, which a man has well proved for himself, is worth a whole armory of famous compounds taken upon the general credit. A few thousand years ago a whole people was in fear and trembling. Their enemy was at the gate; their hope was turned to a single champion; all weapons of war were at his service; the king's own armor was offered to him—his helmet, his coat of mail, his sword. He did not—how could he?—resist the vanity of putting them on. But he soon put them off again, for "he had not proved them." And "he chose him five smooth stones out of the brook," and with one of these he did the deed which saved his country.—Latham.

Section for Perforation of Typhoid.—A man in the seventh week of typhoid fever was suddenly seized with severe pain and great tenderness of the abdomen, accompanied with sharp rise of temperature. Twelve hours later there were signs of beginning collapse. The abdomen was opened by a small incision and the peritoneum found to be thickened; a loop of the small intestine was attached to the abdominal wall by recent and delicate adhesions; in the centre of the adherent area there was a perforation of the intestine, with a ragged border, the size of the end of the thumb, and from this fæces were oozing. There was localized but no general peritonitis. The perforated knuckle of the bowel was drawn out of the wound, the edges of the intestinal ulcer excised into sound tissue, and then brought together with a continuous suture of fine silk. No other ulcers were found, and the bowel was returned and the abdominal wound closed. There was a good deal of shock, but the patient soon rallied, and convalescence was uninterrupted.—*International Journal of Surgery.*

Alopecia.—The most unpleasant, unsightly cases are the atrophic forms, in which coarse, thick hairs are found on a dry scalp without baldness, cases that are practically hopeless. Neither is there much hope where young men become prematurely bald at the same age at which this occurred to their fathers. Here one thinks it inherited rather than of an infectious nature. This hereditary alopecia rarely attacks girls—perhaps because they give more attention to the care of their hair, and wear more suitable, better ventilated head-gear.

Pilocarpine has never been observed to cure alopecia either by external or internal use. According to its nature in each case, disinfecting or stimulating remedies are demanded: still, therapeutics are for the most part powerless, and the rare cures result not from medication, but spontaneously.—Paschis.

Suture of Veins and Arteries.—Sabanyeff reports suturing the femoral vein wounded during incision of the inguinal glands; also the femoral artery. Though the latter case died from the original disease, it was found that healing had begun from without inward. Heidenhans reports an instance in which while removing cancerous glands from the armpit an incision was made in the main artery. The bleeding was arrested by digital compression, and the edges of the arterial wound brought together by a continuous suture of catgut; bleeding was thus completely arrested. The lumen of the vessel was not materially diminished, and the sutures held in spite of strong arterial pulsation. The patient made a good recovery. The axillary artery could be felt pulsating along the whole extent of the armpit.—*Medical Record.*

To Estimate the Dampness of a House.—In the room in question a kilogramme of fresh lime should be placed, after hermetically closing doors and windows. In twenty-four hours it should be weighed, and if it has absorbed more than one per cent. of water the room should be considered damp and classed as unhealthy. The question of the

dampness of dwellings is a frequent cause of dispute between landlord and tenant, naturally solved in the negative by the former. The question can be settled in the future by the test of the hydration of lime, which will give irrefutable proof of the validity of such complaint.—*Hygienic Gazette.*

MASKED FORMS OF MALARIA.—Zacharian, of Batum, Russia, has observed a few peculiar manifestations of masked malaria among the soldiers in garrison. A number began to suffer from violent attacks of palpitation of the heart, others from a recurrent tonsillitis, which would appear daily and disappear in a few hours in spite of the considerable size of the tonsils; others, again, would be affected with acute coryza, accompanied with symptoms of angina pectoris. The malarial origin of these symptoms was placed beyond doubt, and all were rapidly cured by quinine.—*La Semaine Médicale.*

FATAL HÆMORRHAGE FROM THE CONJUNCTIVA.—A child seven months old suffered with hæmorrhage from the conjunctiva of the left upper lid, which ceased only when the patient was asleep; it proceeded from the site of a burst cyst. The granulation tissue was removed and the conjunctiva stitched, which completely arrested the bleeding, but she succumbed two days later to anæmia. The granulation tissue removed was found to be very vascular and uncovered by epithelium, so that the slightest movement of the lid bruised the vessels.—*Edinburgh Medical Journal.*

SUTURES.—The most suitable material is catgut, but it must first be immersed in formalin, as this alters gelatin-substances to the extent that they can be boiled without injuring the tissue. Now when boiled, the catgut is a perfectly ideal aseptic suture material.—HOFFMEISTER.

A better way is to thoroughly clean the catgut, enclose each strand in a glass tube, then fill with alcohol and hermetically seal, finally boiling for one hour. The tube is broken when the gut is to be used.—LEAVENS.

HOSPITAL CONTAGION OF SYPHILIS.—Fournier records two cases treated for eczema, and discharged cured, returning soon after with syphilis contracted in hospital. He is inclined to ascribe the contagion to the patient having, perhaps, exchanged caps with some syphilitic, as extreme precautions are taken to prevent infection. Leredde suggests that syphilitics with lesions in the mouth ought not to be allowed to expectorate promiscuously any more than tuberculous patients.—*Journal of the American Medical Association.*

GASTRIC DIGESTION.—As a result of even the most active gastric digestion of a meal of proteids, very little true *peptone* is formed in the stomach, contrary to what is generally supposed. *Proto-, hetero- and deutero-albumose* are the true products of gastric digestion. The portions of these that escape absorption are rapidly converted into true peptone through the agency of the trypsin of the pancreatic juice after their passage into the small bowel.—STEWART.

TYPHOID WITHOUT PYREXIA.—Typhoid fever, without pyrexia, is of very rare occurrence, but Svehla reports a case in a boy aged six. He had been ill for a fortnight with vomiting and diarrhœa before admission to hospital; was drowsy, emaciated, and the extremities cyanotic and cold; tongue dry and coated; motions liquid, brown, and offensive; spleen not enlarged. The temperature never exceeded 99.2°.—*British Medical Journal.*

CHRONIC COCAINISM.—In severe chronic cocainism, Magnan's sign is often a predominant symptom. This is a hallucination of the cutaneous sensibility, characterized by a sensation of spherical bodies under the skin, varying in size from a grain to a nut. This sensation is peculiar to this intoxication, and its differential value should be more generally recognized.—*Gazzetta Degli Ospitali.*

TO DIFFERENTIATE TUMOR OF KIDNEY AND LIVER.—If of the right side, inflate the rectum and colon. If the tumor is of the kidney the inflated intestines will lie in front of it, and there will be a tympanitic resonance; if of the liver, it is rendered more prominent and dulness occurs on percussion. —*Practical Medicine.*

PUS IN PELVIS—All cases of pus in the pelvis in woman should be drained through the vagina; it is not necessary to remove the uterus, for thorough evacuation can be accomplished without so severe and non conservative a procedure.—KELLY.

The Medical Age.

Vol. XV. DETROIT, MARCH 10th, 1897. No. 5.

Original Articles.

SOME IRREGULAR MEDICAL PRACTICES.

BY C. C. MAPES.

An author should say all he has to say in the fewest possible words, or his reader is sure to skip them; and in the plainest possible words, or his reader will certainly misunderstand them. Generally, also, a downright fact may be told in a plain way; and we want downright facts at present more than anything else.—Ruskin.

Even in the dawn of the Twentieth Century the practice of medicine has not been reduced to an absolute science; many of the superstitions, absurdities, fallacies and vagaries of the early ages still prevail and dominate in all civilized countries; though material advances have been made, great truths having on the one hand forced themselves upon us, and on the other been sought out or culled from the avalanche of chaff with which we have been assailed, yet many empirical practices have not been supplemented by honest, scientific therapeutic measures. "Prove all things; hold fast that which is good!" is a maxim which is forcibly exemplified in the practice of medicine; with the multiplicity of chemical and pharmaceutical products, their divisions, subdivisions, combinations and synthetical compounds, it becomes a matter of considerable difficulty in some cases to make an intelligent selection, and the physician is tempted to revert to the few hundred official preparations contained in the pharmacopœia of a century ago which are known to have produced desired results, although their chemical and pharmacological relations may not have been clearly demonstrated in laboratory experimentations, or their therapeutic effects proved (?) by a long series of animal inoculations. A noted lecturer recently remarked: "You must remember that there are very few things in medicine, even at the present day, which we absolutely know; everything else is based upon theory and experimentation." Empiric practices have prevailed in greater or less degree since the earliest history of the world. Many miraculous cures are recorded in the Bible—deformity, blindness, vomiting of blood, etc, etc. From our present advanced knowledge of scientific therapeutics we are led to question the correctness of the Biblical translation, both as regards the diseases claimed to have been cured by "practices in the temples" and the methods employed. Nothing could be more absurd *in rerum naturâ* when we consider that even at the present day some of the conditions mentioned are not amenable to treatment by the most modern methods based upon scientific pathological principles.

To the mind of the layman the physician is a mysterious work of creation, be he regular or charlatan. The extreme ignorance of the former in matters pertaining to medicine and surgery does not admit of his differentiating, or appreciating the difference between a regular practitioner and the veriest quack. It is enough that "Doctor" be appended to his name, his scientific qualifications not being taken into consideration. Superstition is one of the predominating elements in the uneducated and untrained mind of the laity. As an illustration of the ignorance existing, the following verbatim copy of a letter written to one of our most prominent surgeons is interlineated. An attempt has been made to preserve, as far as possible, the capitalization, phraseology, spelling, etc.:

i hav ben sufferin for sum time with the clap and pock i would lik to hav you pescribe medicin for me i will explain as near as i can my trouble in the year 1891 i had the mumps and they settled in my nuts in the year 1892 i caught the clap and it settled in my nuts it lasted 18 mos and run in the glet and i still have glet in the year 1894 i caught the pock am not well of it yit the clap has

cum back on me the glet stil continus in mouth under tung 2 little hard nots in nose and ear skin ruf and itchin each side of neck sore and hard mustle right shoulder continual akin sore feelln in nable nuts swolen cords to nuts swolen and sore water chanel in penous sore and hard end of penous looks sickly and drawed up flabby 3 bumbs color of skin on penous near end tung seems to bee full of needles stickin in dr i am a poor man have to work for a livin so i will have to depend on Charity for the Pascription i will try and get the medicin sum way dr if i can bee cured sound and weel plese tell me and pascribe medicin for me and if you require it of me if i ever get able will Pay for truble and be glad to do so pleas answer at onct dr i will send stamp for you to answer

respectfully ——

P S

i also hav rumatism in lgs and arms

Surely here is a fertile field for the charlatan, although the practice of empiricism is not by any means confined to ignorant people The more extensively and flagrantly the charlatan advertises, the more is he sought after; and if a shrewd individual, as many are, he can count among his *clientele* some of the wealthiest and most respectable citizens of the community; he is often consulted by those who should know better, whose intelligence and capable judgment in other matters are above the average.* This may be explained by the fact that *populus vult decipi*, or *mundus vult decipi*—humbugged or "bamboozled"—and the greater the deceiving or the humbugging propensities of the charlatan, the greater will be his success for a time. In this connection, however, it must be acknowledged and recognized that a certain amount of deceit or legitimate humbuggery is essential and almost necessarily practiced by the reputable medical profession, illustrated by the following:

Case 1.—Mrs. N——, aged 35, an hysterical, neurotic subject, called at the office of her family physician and gave the history of obscure, fleeting pains throughout her back and chest, requesting that he write her a prescription for medicine. She complained also of attacks of dyspnœa, especially during the night, sleeplessness, etc She said *she knew* she required treatment, and insisted upon having a prescription. After a thorough and painstaking physical examination no evidence of disease could be discovered, nor were there present any symptoms indicating pathologic change in any organ of the body. Close questioning elicited the fact that she had slept six or seven hours the previous night, and the pain from which she complained could not be located. It was evident, therefore, that the patient's disease existed only in fancy, and as medicine (it mattered not what its character) seemed the essential feature in the case, the following wonderful combination was prescribed with directions that it be used with extreme caution:

℞ Sodii chloridum, 1 ounce.
Aquæ destill., ½ pint.

M. Sig.: Cochl. parv. T. d.

It is needless to say that the patient reported at the end of four days that she had no more pain, slept well, dyspnœa completely relieved, etc.

Case 2.—This case is excerpted from a published report: A dudish specimen of humanity presented at the counter of a certain drug store a prescription reading as follows:

℞ Sodii chloridum, 1 ounce.
Aquæ pura, 4 ounces.

M. Sig.: Apply locally. T. d.

The clerk looked smilingly at the prescription and asked the customer what he wanted to use the medicine for. "I am afraid that every hair will fall out, and my doctor gave that as a prescription," was the answer. The clerk filled the prescription and charged seventy-five cents therefor. He put on the bottle a red label with the word "poison" and told the dude to be careful, as the sodii chloridum was particularly dangerous. Three days later the dude brought back the bottle to be refilled. The clerk being absent the druggist himself waited on the customer. The original prescription was found on file, but the price had been omitted. Therefore he fixed up the salted water and thought twenty-five cents would be an honest compensation. "How is that?" asked the customer, "last time I paid seventy-five cents." The druggist went back to his prescription inclosure to investigate, or rather to invent a satisfactory answer. He returned in a few

*The question is often asked, "Why do quacks prosper?" The *Post-Graduate*, quoted by THE MEDICAL AGE, answers the query as follows: "The fact is that the United States are not yet sufficiently civilized for the daily newspapers to have a real appreciation of what the profession of medicine does know and does not know. In other words, the average reporter and editor still believes in clairvoyants, the seventh son of the seventh son, the bone setter, and the healer who neglects the barber and cultivates the sublime art of curing disease which does not exist."

minutes and explained that the duty on "sodii chloridum," which was enormous, had been declared unconstitutional by the Supreme Court of the United States; as to "aqua pura" the price had fallen 100 per cent. on account of the absence of yellow fever this year in Central and South America. The customer went away satisfied.

In each of these cases the physician had to deal with a fool; in each the patient paid two dollars for a prescription of salt and water, and also paid the druggist forty to seventy-five cents for compounding it. In both, if the first physician consulted had not prescribed, as a prescription was the main feature desired, the next would probably have done so, for it may be the second would have been a quack; so the question naturally arises, what action should the reputable physician take under such circumstances? The opinion of the writer is that he should prescribe, demanding and collecting his fee therefor, as by refusing he not only incurs displeasure and causes unfavorable comment—such as: "You know how sick I've been; well, I consulted old Doctor Honest, and would you believe it, he absolutely refused to do anything for me; he never knew how to *cure* anybody; so I went to see that new Doctor Curem, and he gave me some medicine that cured me right away; he knows how to charge too; I paid him five dollars for one visit, but it was worth it, as he knows so much more than that old fogy Doctor"—but he also, by refusing to prescribe, indirectly contributes to the exchequer of the dishonest, itinerant, advertising charlatan, into whose hands the patient is almost sure to fall under such circumstances.

The following paragraphs are excerpted at random and epitomized from flagrant advertisements of some of the most notorious irregulars, simply to show the methods by which they attempt to deceive and humbug the people, and how well they succeed is attested by the statement that they take thousands of dollars from almost every town visited—money which should go to the reputable medical profession.

Doctor —— has devoted more than thirty years to careful experimentation in perfecting his wonderful remedies, and is now prepared to offer direct from his laboratory to suffering humanity several preparations upon which the utmost reliance may be placed; these agents are guaranteed to cure in every instance where his directions are followed. Thousands of testimonials from ministers* and other prominent persons that his remedies will accomplish results where all other means have failed; patients given up by eminent physicians promptly restored to health and strength. No more nasty, nauseating mixtures; his preparations are tasteless,

*It is a noteworthy fact that ministers seem to be the first to endorse and give laudatory testimony attesting the virtues of patent medicines and appliances; many photographs supposed to represent prominent ministers appear from time to time in connection with the most glaring advertisements in the daily or other secular press, as well as in pamphlet form. The pernicious influence exerted by such endorsement is easily understood: if the leader of the flock goes in a certain direction, the others instinctively follow. If the minister endorses a certain mechanical appliance or medicinal preparation, his followers think he does so because he knows of its efficacy, and without giving the matter further thought they buy and administer the remedy or use the appliance, when in truth such measures may be absolutely contraindicated. Another feature of the case will bear elucidation and emphasis: The minister, by endorsing certain quack remedies and causing his followers to employ them, defrauds the honest physician in a measure, as the latter might be otherwise consulted, and this becomes positively opprobrious when it is remembered that the majority of the clergy receive medical and oftentimes surgical treatment *gratis* at the hands of the most eminent members of the medical profession. The following case is cited as an illustration: A gentleman from an interior town of this State came to Louisville and entered one of our infirmaries for treatment. He suffered from a violent cystitis, with posterior and anterior urethritis. A drop of pus exuded from the meatus urinarius on an average every four minutes, and his condition was rather distressing. He came here for the purpose of placing himself under the care of one of the most eminent medical men of the city. A minister visited the infirmary and made a statement to the patient in substance as follows: "Why that discharge amounts to nothing; I had the same thing last year; if you will take the same medicine (naming a quack nostrum) that cured me, you will obtain prompt relief with little or no expense." Ministers and laymen in general know so little about the pathology of disease, that if one presenting symptom in a given case happens to be nearly like one they have recognized in a previous case, they immediately jump at the conclusion that the disease, whatever it is, requires the same management. As the minister had a year previously employed a quack nostrum, he suggested the same remedy for perhaps an entirely different affection, and had his advice been followed the results might have been disastrous.

easy to take, but attack and destroy the disease in an incredibly short space of time.

Ulcers, tumors, hard lumps, nodes, syphiloid ulcers, dropsy, venereal sore throat, ulcers, tubercles of the lungs, in those terrible forms of disease where the body has become a complete wreck, where every hour of existence is torture, this great remedy challenges the astonishment and admiration of the sick; where all the pleasures of existence appear cut off from the unfortunate, by its wonderful, almost supernatural, agency it restores the hopeless to new life and new existence. . . . If used on the first indication of pain or uneasiness, a cure will result before the family physician would ordinarily reach the patient. . . . A cure for all colds, coughs, sore throat, influenza, bronchitis, pneumonia, inflammations, frost-bites, chilblains, asthma, toothache, difficult breathing, headache, neuralgia, rheumatism, lumbago, pains and weakness in the back, spine or kidneys, pains around the liver, pleurisy, swelling of the joints of all kinds. . . . Sure cure for every sprain, bruise, pain in the back, chest or limbs; instantly stops the most excruciating congestions, allays inflammation of the bowels or other glands or organs, by one application. . . . All internal pains, pains in bowels or stomach, cramps, spasms, sour stomach, nausea, vomiting, heartburn, nervousness, sleeplessness, sick headache, diarrhœa, colic, flatulency, fainting spells, are relieved instantly and quickly cured. No other remedial agent will cure fever and ague and all other malarious, bilious and other fevers as quickly. . . . The following symptoms result from diseases of the digestive organs: Constipation, inward piles, fulness of blood in the head, acidity of the stomach, nausea, heartburn, disgust of food, fulness of weight in the stomach, sour eructations, sinking or fluttering of the heart, choking or suffocating sensations when in a lying posture, dimness of vision, dots or webs before the sight, fever and dull pain in the head, deficiency of perspiration, yellowness of the skin and eyes, pain in the side, chest, limbs, and sudden flushes of heat, burning in the flesh. A few doses of this wonderful remedy will free the system of all these disorders. . . .

A visit would convince the most skeptical that he cures when all others fail; expressions of gratitude from hundreds of patients who daily throng his offices; in thirty days he has placed over two hundred patients under treatment; new testimony pouring in daily, proving his wonderful power over disease. Dropsy cured in a week. Cancer cured in five days; patient takes his cancer home in a box; no cutting; no knife used. Patient one week ago placed himself under treatment, the entire foot sloughing and looked as if amputation was necessary, but under his wonderful treatment to-day is again at his post. . . . All sufferers from nervousness, dyspepsia, liver, stomach and blood disorders, piles, catarrh, bladder and urinary troubles, rheumatism, paralysis, neuralgia, sciatica, should call at once. Special quick treatment for private diseases of men and all diseases of women. . . . His specific medicines go straight to the diseased organs and can be plainly felt at work in the diseased parts very shortly after their use is begun. They are pleasant to take, mild, but searching in action, yet agree with the most delicate lady or child, do not reduce the strength, and can be used at the usual occupation. Do not procrastinate. A legal written guarantee to cure or refund the money in every case. So surprising have been many of his cures that not only the laymen but the medical world stand aghast in utter bewilderment at a power so potent and marvelous as to break congestion in a few moments' time. Scores of chronic diseases that for years have defied the combined skill of the medical world have been brought to his offices; and in a remarkably short time those who were blind have been made to see, the deaf to hear, rheumatic pains have disappeared, and paralyzed limbs have taken on new life. No man has ever created such excitement and performed such marvelous cures; his name is on the lips of nearly every man, woman and child as the "wonder-worker." He has received more testimonials and sworn affidavits of cures performed than any living physician. He makes a specialty of chronic and long-standing diseases—cases given up by doctors and pronounced incurable he most desires to see.

Ad infinitum, ad nauseam—charlatanism galore! Is there anything left for the reputable physician to treat? Dropsy cured in one week—cancer cured in five days without surgery—a legal written guarantee! Is it a wonder that people are lured into the meshes of advertising swindlers in the face of such promises? It is time the reputable medical profession took concerted action to protect their interests as well as those of their patients. Is it not wiser to occasionally prescribe placebos in order to hold their *clientele*, and thus conserve them from the clutches of vandals? Should not a law be enacted in all countries and all States having for its object protection of the people in matters of this kind, and prevent wholesale charlatanism—highway robbery? And when such laws have been enacted should they not be enforced to the strictest letter, and thereby endeavor to exterminate quackery? What has become of the statutes in some of the States which read in substance that a man shall have a diploma from a reputable medical college, and shall pass a creditable examination before the State Board of Health before he shall be licensed to practice medicine? What has become of our State Boards of Health, that they do not through proper

channels investigate these matters? Why, in other words, is the itinerant, advertising charlatan allowed to pursue his irregular methods unmolested?

Another pernicious example of quackery may be observed in advertisements appearing in the secular dailies detailing much-vaunted "four-day" cures for venereal diseases, especially gonorrhœa, and "blood diseases," "blood poison," etc.—"à permanent cure in the most obstinate cases guaranteed in from three to six days"—"No other treatment required." In other words, do not consult a reputable physician, but come and be treated by a noted charlatan, an advertising, itinerant quack, whose knowledge of medicine and the human economy may be equal to the old woman's, who said she did not need a doctor when she was sick, that she knew all about her "innards," and all she had to do was to take a little boneset tea and some pulverized scorched egg-shells to scrape the bile off her "elementary track;" the high-flown doctor could not tell *her* anything.

The three- to six-day cures for gonorrhœa are becoming as numerous as they are pernicious, and many young men are being duped and perhaps irreparably injured by the unscientific application of such quack nostrums. If they would reflect that gonorrhœa is an *obstinate*, and it has been claimed perhaps an *incurable* affection, when treated by the most scientific and approved methods, they would realize that the charlatan, by his haphazard and unscientific application of "quack cures," can do nothing but harm. And this is not all: the charlatan may pronounce his patient cured, who forthwith goes and copulates, it may be, with a healthy female, thus transmitting to her, an innocent victim, the loathsome disease of which he supposes himself cured, so that the damage done by the quack and his "four-day" method is two-fold in its significance. *

Another sample of the fraudulent means employed by traveling "specialists" is illustrated by the appended excerpt: "*Many Duped by a Brace of So-called Specialists.*—Facts have been made public disclosing an alleged fraud which has been perpetrated upon perhaps one hundred and fifty people of ——ville and vicinity to the tune of ten dollars each. The fraud was done in the name of the ——town Branch of the —— Medical Institute."

The names of the two individuals who were alleged to have worked the scheme was then given, with the addendum that they are now missing. The scheme is for two or three "slick" persons (usually male, sometimes female) to visit a town and represent themselves as eminent specialists, establish an elegant office, and advertise in the daily press that they are prepared and qualified to successfully treat the various forms of chronic affections by the latest approved methods, stipulating the amount per month to be charged each patient; consultations and advice free. Patients, among certain classes, flock to them for treatment, and, after collecting the monthly installments from as many as possible, the "noted specialists" decamp, to work the same game in other and greener pastures.†

---

* A few good points are covered in the following clipping from the *Atlanta Medical and Surgical Journal* for April, 1896: "One much advertised nostrum is said to be composed of fluid extract of smilax, sarsaparilla, fluid extract of stillingia sylvatica, fluid extract of lappa minor, fluid extract of phytolacca decandra (each sixteen parts), and tincture of xanthoxylum (eight parts); some nitrate of potash and a small quantity of iron are added, and enough alcohol to preserve it. Another is made of fluid extracts of phytolacca, stillingia, sarsaparilla, xanthoxylum, with some compound tincture of gentian and iodide of potash. A certain 'Microbe Killer' is a mixture of impure sulphuric acid, four drachms; impure muriatic acid, one drachm; red wine, one ounce, with one gallon of water. Another like compound is made by the addition of one pint of muriatic acid to a barrel of water. The Electropoise is composed of a nickel cylinder, to which is attached one end of a copper wire, the other end receiving the confiding and deceived patient."

† In commenting upon "Legislation for the Quack," the *American Medico-Surgical Bulletin* has the following to say: "While the educational question is on the tapis, and our State institutions, through the medium of their respective governments, are taking active steps to weed out by legislation that class of aspirants which, by reason of defective education in preliminary branches, is totally unfitted for pursuing the study of medicine, would it not be an excellent idea to insert a clause that will remedy the evil growing out of the practice of specialists, so-called, who go about the country advertising all manner of cures and using

What the character of the "Medical Institute" referred to is, the writer does not pretend to say, nor does he affirm or deny that it countenances the methods of those who claim to represent it; neither does he vouch for the truthfulness of the statement that the two so-called specialists represented the concern, but simply gives an excerpt of the item as it appeared, disguising names and places. He does aver, however, that notorious charlatans abound in almost every locality, who pursue their irregular trade seemingly without fear of the law, written or unwritten, moral, divine, professional, or otherwise.

The latest aspirant for public favor in the realms of irregular therapy hails from a neighboring State, and claims, *inter alia*, to cure bone diseases and deformities by a method to the name of which is affixed a "pathy," but what it signifies the writer knows not, and has reason to doubt whether it is clearly understood by any one connected with the so-called "school." By this marvelously potent "method" shortened legs and arms, from any cause whatsoever, are made to grow to such proportions as to match their fellows, without resorting to the knife or to any surgical procedure; deformed feet are as nothing when brought in contact with this magic influence; lame and deformed backs, broken or dislocated spines, are made well and straight; obstinate cases of hip-joint disease, which have baffled the skill of the most eminent surgeons for weeks, months, or years, where the patients were unable to take a single step, quickly and permanently cured; miracles performed daily; hundreds limp and lame from bone disease and deformity are restored, if we would believe the statements accredited to the advocates of this wonderful "method."

This so-called "school" has recently established branch offices in many cities, towns and villages, and its representatives are openly plying their trade apparently under the gaze of officers of the State Boards of Health.*

Is it not strange that in the progress of scientific medical and surgical principles during the history of the world, based upon honest, painstaking, careful experimentation and research, that the reputable profession has never discovered a method by which disease and deformity can be relieved and cured without the use of medicines, or the intervention of surgical procedures or appliances; and that in the dawn of the Twentieth Century such an art should have been discovered, developed and promulgated by an obscure *lusus naturæ?* If these things be true, then our science, scientific methods, our years of study, pathological investigation, clinical observation, experience and experimentation, go for naught.

Louisville, Kentucky.

people's names indiscriminately to substantiate their advertisements, which are generally absolutely false? In most cases these 'specialists,' better known to people of intelligence as 'unscrupulous quacks,' have a diploma or license to practice, and so long as there is no direct charge of malpractice they are safe from process of law. The wily 'specialist' of this class does not run an account; he must have his fee in advance; and his engagements (?) will not admit of a stay longer than a week, or at most two weeks. But it is an exceedingly profitable one; he lives in style, advertises the marvelous cures he performs, and carries away with him a good portion of hard-earned savings of a class of persons who can least afford to be humbugged in that way. The practice is a usurpation of the moral right of the local physician, and is a species of fraud imposed on an innocent and guileless public which ought to, but does not, know better. A removal of the cause would be a wise step, and will work good."

INFLUENCES OF CLIMATIC CONDITIONS ON FUNCTIONS OF SKIN.

BY ISAAC M. CLINE, A.M., M.D.

The following functions of the skin, as influenced by weather changes and climatic conditions, are considered: Secretion and excretion,—secretion of sweat: Respiratory excretion: Secretion of sebaceous matter: The regulation of the evolution of heat.

*The following is clipped from the MEDICAL AGE, vol. xv, No. 3: "*A Contagious Form of Feeble-mindedness.*—This is what an exchange just dubs the 'Osteopathic' quack fad that has struck the States of Missouri, Illinois and Iowa, and that promises to relieve all the ills of humanity, from toothache and rheumatism to locomotor ataxia and paretic dementia, '*by manipulation of the bones.*' One operator, upon a paretic, claimed to have 'replaced a bone at the base of the skull' that subsequently again 'fetched loose from its moorings.'" It might be added that the fad has spread to other States besides the three mentioned.

The influences of climatic conditions and weather changes on the skin — the latter considered as an organ of secretion and excretion, — are very marked and of great importance. It has been determined that thirty per cent., and probably more, of the water given off from the system is through perspiration and cutaneous evaporation; there are also given off some organic acids and salts. As regards the amount of cutaneous secretion and excretion, the most reliable determinations which have been made indicate that a healthy person loses by the skin one-sixty-seventh of his body weight in twenty-four hours. While no direct observations have been made concerning the extent to which these secretions vary with different climatic conditions and weather changes, there are still laboratory experiments to guide us, and the effects of such influences in a general way may be determined by the application of physical laws. Secretions from the skin increase and decrease with certain atmospheric conditions, which are dependent mainly upon temperature. Temperature and absolute humidity (which is governed in a great measure by temperature) are the principal conditions to be considered. Air at a temperature of 32° can contain only 2.13 grains of water vapor per cubic foot, while at a temperature of 80° it can contain 10.95 grains, which is 8.82 grains, or four times more than that which it can contain at a temperature of 32°. From this it is found that a relative humidity of seventy per cent., with an atmospheric temperature of 32°, will leave a capacity for water vapor of only 0.74 grains per cubic foot, while a relative humidity of seventy per cent., with a temperature of 80°, will leave space in the surrounding atmosphere for 2.65 grains of water vapor per cubic foot, far more than the atmosphere can contain at a temperature of 32°. At ordinary temperatures the capacity of the atmosphere for moisture is doubled or diminished one-half respectively, with a rise or fall in temperature of 18°. Such being the facts, one must look to temperature and absolute humidity as the main climatic factors which influence secretions from the skin.

In the effects of weather changes temperature plays the most important part in influencing the secretory and excretory functions. A fall in temperature of the surrounding medium causes contraction of the cutaneous vessels, probably through its reflex effects on the vaso-motor nerves, and the skin becomes dry, collapsed, and offers increased resistance to the passage of fluids, so that the secretions are diminished; and, in addition, lessening of the capacity of the atmosphere for water vapor with lower temperatures leaves a smaller tendency to evaporation, which further adds to the conditions which tend to retard the elimination of fluid through the skin. With a decided rise in temperature there is a converse condition: the dilatation of the cutaneous vessels with increased flow of fluids to the surface, if the rise in temperature is sufficient, causes the skin to become red and congested, and the secretion (perspiration) is increased. Increased temperature of surroundings causes the skin to become red, while there is profuse perspiration, which is arrested by cold. From this it is readily recognized that the amount of secretion through the skin must vary materially according to the conditions that exist in the atmosphere at different times and places. The smallest amount is given off in cold, relatively moist localities, and the greatest in warm, dry localities. Changes in temperature from day to night, or from sun to shade, change the amount of secretion to an extent depending upon the change in temperature experienced and the humidity present.

The same general distribution of climates is applicable here as in their relations to general pathology, viz., low, damp, cold climates, low, damp, warm climates, and high, dry climates.

The smallest amount of secretion through the skin takes place in low, damp, *cold* climates where this work devolves upon other organs, particularly the kidneys and lungs. The reasons for this are obvious, since the winter temperature is low and the relative humidity high, with a necessarily small absolute humidity. Decided changes in temperature are also frequent, even the highest of which give a high relative but low absolute humidity. Notwithstanding the relatively high summer temperature, the elimination of water through the skin is less here in summer and more irregular than in any other climate, as

the range between day and night, and sun and shade, temperatures is more marked, and decided changes in temperature more frequent.

In low, damp, *warm* climates the temperature is high and uniform, but at the same time a high per cent. of saturation exists, which render this climate somewhat similar in effects to the damp, *cold* climate. In this the conditions of atmosphere favor the influx of blood into the capillaries of the skin, not only in summer but to a great extent even in winter, and thus keep the sweat glands in continuous action. The high temperature, notwithstanding its relatively high humidity, still leaves a greater margin for evaporation than in low, damp, *cold* climates, and the amount of water given off through the skin finds conditions favorable for its elimination. In the summer there is a greater similarity in the influences of these two classes of climates on the secretory functions of the skin; but there are certain well-defined conditions at this season which draw the line of demarcation, the most prominent of which are the ranges between day and night and sun and shade temperatures, which are greater in summer in the low, damp, *cold* than in the low, damp, *warm* climate. These greater changes and ranges in temperature in the former make the secretions less uniform, and the amount quite variable, while in the latter, where the temperature conditions are more equable, the amount of secretion through the skin is greater and more uniform. A larger proportion of water is given off from the skin here, at nearly all times, than in the low, damp, *cold* climate.

In the *high, dry* climate the conditions are relatively favorable, at all times, for the elimination of water through the skin. The amount of water vapor present is always small in proportion to the capacity of the atmosphere for moisture, and as a result rapid evaporation constantly takes place from moist surfaces. In this climate a greater amount of water is eliminated through the skin than in any other, and these secretions are taken up so rapidly by evaporation that perspiration is nearly always imperceptible. Since there is an annual variation in evaporation, there is also an annual variation in the secretions through the skin; the greatest amount is eliminated in summer and the least in winter. In all climates a rise in temperature increases the capacity of the atmosphere for water vapor, while a fall in temperature lessens the capacity.

The respiratory excretion, which is principally in the form of carbonic acid gas, is small, being only about $\frac{1}{220}$ of the total amount given off from the body, but no doubt is increased and diminished as a whole in the same manner as the perspiratory secretion, as the organs concerned are the sweat glands, or rather their tubes, moistened as they are with fluids and surrounded by a rich network of capillaries. There is very little, if any, climatic effect on the sebaceous secretion. It is probably diminished in cold weather and with falls in temperature, and increased in warm weather and with rises in temperature.

The function of the skin in the part it plays in controlling the evolution of body heat bears an intimate relation to the preceding functions. The amount of heat produced depends upon the metabolism which takes place, therefore among the factors which increase or diminish are temperature changes. The temperature of any part of the body depends to a large extent upon the amount of blood in the organ, and also upon the rapidity with which the blood is renewed by circulation. Liebermeister pointed out a difference in temperature with regard to the external and internal parts of the body: The external parts give off more heat than they produce, so that their temperature diminishes the more slowly the blood flows into them, and consequently are warmer as the blood-stream flows more rapidly: Acceleration of the flow of blood causes the temperature of the peripheral parts to reach nearer and nearer that of the internal organs, while a retardation causes the external parts of the body to approach the temperature of the surrounding medium. The slower the velocity of circulation the greater the difference of temperature between the peripheral and internal parts. As the bodily temperature of man is nearly constant notwithstanding the great variations in surroundings, it is evident that some mechanism exists whereby the heat economy is constantly regulated. The application of cold causes more active

metabolism by bringing about both voluntary and involuntary muscular movements when the co-operant factors for the regulation of bodily temperature are in their normal condition, and the application of heat has the reverse effect; this action, however, is only temporary, after which direct cooling or warming is experienced, and unless controlled in some way this loss or gain in heat would be injurious in diminishing or increasing the body temperature.

Accepting the theory that within the body there exists mechanisms which determine the molecular transformation upon which the evolution of heat depends, it appears that the skin is the governor which maintains the temperature of the body within narrow limits, for, according to the results of Dulong, 87.04 per cent. of the heat excreted from the body is through the skin,—and 15.37 per cent. of this is extracted in the evaporation of water from the skin, and 71.67 per cent. radiated and conducted from the skin to the surrounding atmosphere. This must vary materially under different climatic conditions. In cold weather the continued low temperature causes contraction of the cutaneous vessels, and not only checks the perspiratory secretion, the evaporation of which uses heat from the body in the transformation of water into vapor, but the transverse thermal conduction of heat through the skin is diminished by the contraction of the cutaneous vessels and the expulsion of the blood (which is a good conductor of heat) from the cutaneous and subcutaneous regions. The conduction of heat from the body is diminished when the amounts of fluids near the surface of the skin are lessened. Moist air is a better conductor of heat than dry air; hence the conduction of heat from the body to the surrounding atmosphere will be increased and diminished with the absolute humidity. According to investigations of Stewart and Masje, the amount of radiation from the surface depends on the difference between the body temperature and that of its surroundings and its coefficient of emission, and the chief factor in determining the amount of radiation is the temperature difference. With a low temperature there is no check to radiation, except in so far as it can be modified by precautionary measures, such as clothing, etc. Any fall in temperature, as well as change in temperature from day to night, or from sun to shade, increases radiation, and the increase in this is in proportion to the changes experienced. In warm weather, when the cutaneous vessels are dilated, and the skin is gorged with fluids, it becomes a better conductor of heat, and in addition to this, the sweat secretion becomes greater with an increase in the warmth of the surrounding atmosphere. When the sun and air temperatures are higher than the temperature of the body, the radiation and conduction of heat from the skin are not very potent factors in influencing the temperature of the body; under these circumstances the abstraction of heat in the evaporation of sweat becomes the prime factor in regulating the body temperature through the skin. When the air temperature is below that of the body, all of these factors play a certain part in this respect.

The same general divisions of climate as already cited will apply here. In the low, damp, cold climate, the elimination of water through the skin is small in winter, and hence the heat used in vaporizing this is very little, consequently about all the heat that is given off from the body in this climate in winter is by radiation and conduction. In summer, particularly during the day, radiation and the abstraction of heat by evaporation of the sweat secretion are the prime cooling factors. The conditions are somewhat different at night, for then the extraction of heat in the evaporation of sweat decreases, and the excretion of heat, both by conduction and radiation, is materially increased; similar effects, but less marked, are experienced in changing from sun to shade temperatures during the day, especially when the shade temperature is somewhat below the body temperature, which is generally the case, except occasionally early in the afternoon. The sudden changes in temperature experienced in this climate, as well as the large diurnal variations, cause a material variation in the amount of heat given out from the body to the surrounding atmosphere, which must result in irregularities in heat transformation.

In the low, damp, warm climate, where a more uniform condition of temperature exists, the shade temperature rarely reaches the

body temperature. The factors which favor the excretion of heat are small in this climate on account of the nearness of its temperature to that of the body, particularly in summer. In winter radiation and conduction are the principal factors which favor loss of heat from the skin in this climate. Radiation, even in winter, is relatively small. The high absolute, as well as relative, humidity favors increased conduction of heat from the body to the atmosphere, and it is partly due to this that changes in temperature in this climate are so perceptible to the body. The unpleasant effects of these special climatic features may, in a great measure, be avoided by frequently stimulating the skin by the use of cold baths and washing with cold water, which cause the muscles of the skin and its blood-vessels to contract and become vigorous and excitable, so that when cold suddenly strikes the body or a part of it, the excretion of heat is energetically prevented. Cold baths and cold water for washing keeps the skin stimulated so that it contracts readily on being exposed to lower temperatures and drives the blood from the capillaries, and thus, in preventing the excretion of heat, protects the body from cold.

In the high, dry climate the extraction of heat in transforming the water secreted from the skin is greater in both winter and summer than in any other class of climate. In this climate the effects of conduction are always at a minimum on account of the dry air being a poorer conductor of heat than air containing a large amount of water vapor. Radiation is relatively great in this class of climate. The abstraction of heat and vaporizing moisture from the skin is large at all seasons, and it is through this agency and radiation that the greater portion of the heat excreted in this climate is given off.

A careful understanding of the influences of weather changes and climatic conditions on the functions of the skin are most valuable in the treatment of many diseases, not of the skin, but of other organs where a change in climate might be made so as to relieve such organs of a portion, at least, of their work, or influence their functions indirectly through the effects of climate and weather changes on the skin.

Galveston, Texas.

DISORDERED DIGESTION.*

BY L. J. FRINK, M.D.

In presenting some of the causes of disordered digestion, I hope to elucidate suggestions as to how such can best be removed and treated; and I wish to call attention more particularly to the causes of these functional derangements, or to those derangements that are the direct result of functional changes, which the majority of dyspeptics to-day are suffering with.

The food of the generality of animal beings requires some preparation ere it is capable of being absorbed, hence digestion is a necessary function of life. As the nutriment passes along the alimentary canal it comes in contact with certain secretions the chemistry of which it is not necessary to discuss farther than to say they resemble each other in being watery, saline, and albuminous, but differ respectively in action.

In the mouth by mastication the food is minutely comminuted, so that it may more readily yield to the influence of the digestive secretions and likewise be perfectly permeated by the salivary secretions before being swallowed. In the stomach the food is brought directly in contact with a fluid composed of two ingredients, and secreted in varying amount according to demand and stimulation; and this fluid, it is claimed, will resist, or rather retard, decomposition, a statement that is still open to some question. In the intestines the actual digestive process is completed, the food here being thoroughly incorporated with various secretions which render it assimilable, and prepared for the excretion of waste.

Naturally, the more perfectly the foregoing is performed the more healthy is the digestion. Thus there ought to be satisfaction and comfort as the result of taking nourishment, and the functions of digestion should likewise be performed without attracting special attention. But when digestion is improperly performed, even though the deviation be only a sense of oppression, indigestion exists. Indigestion from a functional standpoint refers to a disturbed condition of the digestive functions, independent of any structural

* Read before the New Hampshire Medical Society.

change in the digestive apparatus, and this is what is usually termed *dyspepsia*.

Now the right of dyspepsia to pose as a malady has been questioned, the claim being made that it is but a symptom or collection of symptoms. There are no doubt morbid states connected with disturbed digestion in which it is not always clear whether the dyspepsia stands in the relation of a cause or as an effect to some other existing malady; nevertheless there seems to be practical need for the separate consideration of dyspepsia, as there is a large group of sufferers whose digestive disorders cannot be classified under the existing and more orthodox titles.

I wish to call attention to the causes and treatment of this class of troubles, which in one shape or another are found in people of both sexes, all ages, and every social condition, and are the stepping-stones to gastric catarrh, a malady Ewall asserts to be the best-fostered and widest-spread of all this world's ills.

With these forms of disordered digestion there seems to be two classes of causes: those due to the imperfections of the processes to which the food is subjected, and those due to the character of the food. As regards the first there are two factors—a mechanical and a digestive process.

The mechanical process comprises those to which the food is subjected to bring it into contact with the secretions or digestive fluids by altering the positions of the food and its mastication. The various muscles of the digestive tract are concerned in this function, creating wave-like movements in the contents of the stomach, which mixes thoroughly with the gastric secretion; and in the intestines, muscular action forces the food along for a like purpose and to present for absorption. Disturbances from any cause of the muscular function which interferes with the proper rate of progress of the foods interferes with its digestion.

Inefficiency on the part of one of the digestive fluids frequently induces like result from the others, and depraved conditions affecting these various secretions may affect quantity as well as quality, or both. Among the factors provoking such conditions are depressed mental states, anxiety and fear,—which notoriously interfere with and may even totally arrest digestive processes; the neurasthenic state,—which because of depressed physical condition and nervous exhaustion reduces the tone of the nerve-cells, thereby influencing the secretions, and disturbance of blood supply to the secreting organs—which impairs the character of the secretions. Mental worry may also influence the blood supply by determining a larger amount to the brain, producing, temporarily at least, an anæmia of the digestive tract.

Many cases of dyspepsia are due to improper preparation of the nourishment, which may not perhaps be properly cooked, or unfit for the purposes of cooking, or improperly seasoned, and such errors cannot be corrected after ingestion, and the wrong brings its own punishment.

In the character of food, each person is to a great extent "a law unto himself," hence it is often difficult to determine what constitutes a normal or natural diet; yet those who have long indulged in abominations in diet without apparent injury, may in time pay the penalty of trifling with their digestive apparatus. So, too, condiments, which may seem beneficial in one instance, may in another be provocative of the utmost misery.

By many the digestive secretions are so diluted by the amount of fluid imbibed with their meals that their activity is very greatly inhibited, and if cold drinks are favored such may reduce the temperature of the stomach below normal and thus ultimately cause an impaired digestion. Again, the excessive use of alcohol, by its action upon one of the ingredients of the stomach secretion, may become a cause equally or even more pernicious. Overeating, however, is the most common error, and when this is accompanied by an inordinate consumption of fluids the food is forced so rapidly toward the intestine that time enough is not allowed for its mastication and proper commingling with the saliva or gastric secretion; and likewise the afferent impulses are not carried to the nerve centres to cause diminution of the appetite. This condition exists somewhat prominently among people who do not allow sufficient time for meals.

Among the laboring classes, many try to support life upon a diet of starchy nature, such as potatoes and bread, and the result is, in

many instances the body as well as the digestive organs suffer for want of proper nourishment.

People addicted to alcohol are apt to have the appetite for solid food diminished, and many, being possessed of but limited means, and devoting a good part of their earnings to this indulgence, cannot secure either the proper amount or quality of nourishment.

Improper and irregular periods of eating is another error, for usually irregularity breeds haste, which not only interferes with digestion, but disturbs the periods of rest which the digestive organs require.

Exhausting illness, physical overwork, with hereditary disposition to dyspepsia, together with an unhealthy climate, all combine to burden the dyspeptic.

Idiosyncrasies are of great importance and should be carefully looked after, for while one individual may possess an abundant salivary secretion, another may be sadly deficient in this particular; and the same may hold true of the other digestive secretions.

Treatment may be dietetic, mechanical, or both. It should always be endeavored to discover and establish the proper relation between the diet and the natural digestive capacity, and the former selected in a way that, while it affords the necessary amount of nourishment to the body, will impose the smallest amount of labor on the digestive organs, the stomach particularly. In the preparation of the food the cooking is most important: it should be prepared in a thorough and careful manner and rendered agreeable alike to the senses of vision, taste and smell. Usually vegetable foods are not so thoroughly cooked as they should be, and when taken into the stomach in an imperfectly prepared condition tax the digestive functions to the utmost, then becoming a source of great trouble, especially to those already suffering from a deranged digestion. But often, as before intimated, the trouble may originate with imperfect mastication and insalivation, which should be strictly investigated and remedied if found at fault.

Now, why are the two functions of mastication and insalivation so often improperly performed? Largely because of that abomination, "excessive drink" while eating. The food is taken into the mouth and immediately followed by a large drink of some palatable form, and so the process of alternation with food and drink goes on until the meal is completed. The food is simply washed into the stomach, and the functions of mastication and insalivation defeated.

Food should be of the proper kind as well as amount, so that the system will not suffer from lack any more than from overabundance of nourishment. Seek to have nerve impulses control the appetite so as to produce the best possible conditions for the most perfect stomachal and intestinal indigestion. Still, a small amount of food properly taken nourishes better with less labor than a larger amount hastily and improperly ingested. It may be added here that coffee and tobacco should be avoided if the digestive system is influenced by the nervous system.

The excessive quantity of sugar that is often taken at meal time should be as thoroughly condemned as an excessive quantity of water, tea, coffee or alcohol.

Again, after fatiguing exercise a certain amount of rest should be had before partaking of food, and a longer period of rest after meals before again taking up work.

The adjuncts of the meal should always be made as agreeable as possible. Ease of mind has from the earliest times been recognized as a concomitant of perfect digestive process; and so, too, agreeable companionship proves a most desirable factor, and the latter usually tends to slower ingestion of and longer periods between foods. On the contrary disagreeable companionship, painful reflections and concentration disturb digestion by inhibiting secretion and tending to rapid eating.

The dyspeptic's mode of life always requires careful attention, and the wonder is that the digestive organs, exposed as they are, escape being morbidly influenced as often as they do.

By dietetic corrections much relief may be gained in this class of disorders, but most will require some medicinal treatment, which should have for its object the promotion of functional activity of the muscular coat and secreting glands, which may be done by the aid of vegetable bitters—combined with an alkali if there is excess of activity, or with a mineral acid if there are eructations and de-

ficiency of the gastric secretion. Next it is essential to promote elimination of the products of a sluggish and disordered digestion and remove the accumulations in the intestinal canal—the importance of relieving the constipation that accompanies cases of atonic dyspepsia is very great. This may be remedied by a course of laxative mineral water, which of course should be accompanied with proper diet, exercise, and healthy surroundings. Usually, however, it will be found that laxatives of a vegetable character are better borne than the mineral waters, and here the field is so large that each practitioner will find it an advantage to select for himself, either in accordance with his own or the patient's individual preferences or prejudices.

Bartlett, New Hampshire.

PNEUMONIA.

BY F. J. BOWEN, M.D.

A very essential part in the management of this malady is its diagnosis. The cases which steal in surreptitiously during old age, or in the course of other diseases, are always the most grave and those that require especial attention. Such are usually not marked by any such pronounced or characteristic symptoms as will enable the patient to make his own diagnosis, or even allow his medical attendant to recognize the truth at a glance. Again, the key to diagnosis is not the display of symptoms presented by typical cases, but a careful, thorough physical examination,—not so much the skill to make an examination as the *pains* in making it; and such an examination not only inspires confidence on the part of the patient, but often conditions of vital importance are thereby revealed which otherwise would have been overlooked.

A patient in the course of another disease will appear worse; an old person will all at once feel unusually prostrated; may complain of a vague pain in the chest, stomach or lower part of abdomen; the suggestive chill may be absent or so slight as hardly to be considered. No one thinks of pneumonia, but the physician has not done his duty unless careful and repeated examinations are made until the trouble is definitely located or the patient on the high road to convalescence.

I was once called to a man, broken down from drink, who was stricken suddenly while at work; he was so utterly prostrated as to be unable to talk. His employer thought that he had been drinking; his family that he had a "shock." Temperature was barely normal, and examination justified me in suspecting pneumonia, a diagnosis that was confirmed at the second visit. Recovery, however, in spite of all explanations and demonstrations of the physical signs, was necessary to convince the family that I was correct. Other cases are in mind where pain was referred to the stomach, lower part of the abdomen, opposite lung from the one affected, even where no history of pain could be elicited.

Pneumonia is one disease in which prompt, energetic treatment is apt to be eminently satisfactory. Contrary to generally accepted theories, I believe it may often, by judicious treatment, be aborted or at least modified in severity; and even the most severe and unpromising carried safely through to health.

My own plan is always, at the very outset, to first administer a full dose of calomel, and also to place a large fly-blister over the part where the trouble is locating, at the same time giving definite instructions as to management. I believe that when the calomel and blister are employed at the very commencement they often abort the attack, and even if consolidation is well advanced, that they tend to an early crisis.

Following the operation of the calomel, I give every four hours, in milk, ten grains of carbonate of ammonia, shaved fresh from the lump. The milk prevents soreness of the tongue otherwise apt to be caused by ammonia. Whiskey, usually a tablespoonful, also in milk, is given every four hours, alternating with the ammonia. Commencing about the third day, moderate doses of digitalis and nux vomica are given at intervals of six or eight hours, the plan being to get the heart well in line for the crisis.

This treatment is hardly ever varied by me except as it may be necessary to increase or diminish doses and their frequency of administration to meet the demands of individuals. In the case noted above whiskey and ammonia were alternated every hour.

Ordinarily mere elevation of temperature is of far less importance as a guide than the

heart; keep close track of the sounds of the latter and of the condition of the pulse. Any "staggering" or weakening calls for a judicious increase of some or all of the remedies mentioned. Remember, a comparatively low temperature may be a sign of prostration.

While over-stimulation is not desirable, there is not the chance for reaction or exhaustion following the fair use of stimulants that there is in a more prolonged illness. Prostration is marked and rapid, but recovery begins in almost the same decisive manner. The object of treatment must therefore be, to meet the blow with equal decision and stubborness, and sustain the vitality until the patient can pass the crisis.

The bowels should be regulated by enemas or laxatives up to the time the crisis is expected to appear, when it is my practice to omit, until reaction sets in—in fact to omit everything avoidable which will tend in the slightest degree to detraction from vital energy. Temperature, ventilation, etc., should be looked after personally, for even the best nurse is not apt to be trustworthy here, and the friends likewise exhibit an astonishing lack of judgment. Often the physician must guard the patient against the fresh-air, cold-water and bath cranks, who are always to the fore, and insist upon the extra bed-clothing essential to the lowered vital energy, and to anticipated changes of weather.

Beyond the milk given with the medicines little is required in the line of nourishment; one or two eggs a day, beaten and added to the whiskey and milk, sweetened and flavored with nutmeg to the taste, broths, etc., will supply all demands of diet.

Tuscarora, N. Y.

AN UNUSUAL MANIFESTATION OF ACUTE RHEUMATISM.

BY EUGENE BEACH, M.D.

A lawyer, aged forty-nine, "never felt in better health" than on a fine autumn day when he went upon a visit to his mother in the country. On retiring he thought the bed seemed damp, and was sure the carpet on the floor was damp to his bare feet. He awoke in the morning with considerable fever and a general aching, most pronounced in the testicles, which were swollen and tender. He was treated for "a cold" with domestic remedies, and after three days was so much improved as to return home; but the testicles remained swollen and tender, so that the jolting of a carriage caused considerable pain.

After treating himself unsuccessfully for two days more, I was summoned and found an orchitis, limited mostly to the right side, the gland being considerably swollen and exceedingly tender; at this time there was but little fever or constitutional disturbance. After a few days, although not well he was able to get about, wearing a suspensory.

Two weeks later, the orchitis not having entirely disappeared, he complained of pain in both legs on the outer side, most intense in the region of the trochanters, and extending downwards, which at the time was regarded as a sciatica.

After another interval of two weeks cystitis of mild type developed, that after a few days was accompanied by slight urethritis. This was followed in a few days by an exacerbation of the inflammation in the testicle that after five days gave way to a pronounced attack of articular rheumatism that continued with considerable intensity for three weeks. Now the acute condition subsided, the only trace of inflammation being in one knee, which continued swollen, tender and painful for several weeks.

Lyman, in "An American Text-book of the Theory and Practice of Medicine," says that "Inflammation of the bladder is sometimes witnessed, but is not a frequent event in connection with articular rheumatism; also the same thing is true of urethritis and orchitis." Since, then, the unknown special cause of rheumatism frequently affects structures of the body other than those of the joints, may it not be regarded as probable in the extreme that in this case the inflammation of the testicles was the primary manifestation and the cystitis and urethritis likewise complications of rheumatic origin. There is every reason to be satisfied that they were not of specific origin. The patient has a rheumatic heredity, and the exposure to chill and damp experienced by sleeping in a damp bed and a damp room doubtless were sufficient exciting cause to precipitate the attack.

Gloversville, New York.

THE MEDICAL AGE.

A SEMI-MONTHLY REVIEW OF MEDICINE.

—PUBLISHED BY—

GEO. S. DAVIS, Medical Publisher, Box 470.

All communications regarding papers, reports, etc., should be addressed to the Editor of the MEDICAL AGE, P. O. Box 470, Detroit, Mich.

Matters relating to advertising space, etc., to be addressed to the publisher, Geo. S. Davis, Box 470, Detroit, Mich.

The editor cannot engage to return rejected manuscripts or to correspond with the writers thereof, unless such are accompanied by sufficient postage.

DETROIT, MICH., MARCH 10th, 1897.

Editorial.

A CRYING EVIL.

During the last two months the chief topics of conversation among medical men in Michigan have been, the proposed "Medical Practice Act" and the so-called Immigration Bill vetoed by Grover Cleveland as his almost ultimate official act.

The latter from first to last was recognized by all thinking and sensible people as not only pernicious, but superlatively un-American. No one regrets the untimely demise of this measure, except perhaps the "blatherskite" politician. Its probable effect had it become a law can hardly be computed, but that it would in many instances have proved disastrous to business interests goes without saying.

And yet the proposed immigration measure calls to mind certain existing features on almost parallel lines that are sadly in need of attention and regulation, particularly within the domain of medical practice. To-day foreigners of all classes and conditions, professing to be possessed of medical qualifications, are admitted to the United States without question, and enter into competition (often of a disreputable character) with native talent; and the tuft-hunting charlatanistic tendencies of the masses are such that these individuals are afforded a hearty welcome, and their pretensions swallowed without even so much as the customary "grain of salt."

Nowhere on the Continent of Europe can an American physician practice his profession without first taking a course of medical education in the individual kingdom or empire, and also undergoing a rigid state examination. He may not even prescribe for members of his own family or for himself; the pharmacist cannot honor his prescriptions; and should he desire to purchase any drug which comes under the list of poisons, he must first obtain an order therefor from some local and legally qualified and registered medical man. In many countries citizenship even is a *sine qua non* to permission to study medicine or to undergo examination therein.

How different is it in the United States! Here the half-educated man who holds a diploma from some obscure university, or perhaps is the possessor of a forged document, is welcomed, with open arms so to speak, and without question. Notoriously, to-day diplomas are manufactured in Belgium expressly for Continentals who desire to enter practice upon American soil; and forged documents of like character purporting to emanate from Edinburgh, Glasgow, Dublin, London and the Swedish universities are provided from the same source. One of the most notorious peripatetic quacks—a native American, however—holds a grist of such documents, regarding the character of which there can be no question, inasmuch as his primary education precludes the possibility of their having been obtained legitimately.

We ourselves are to blame in these matters, partly through the apathy of medical men, partly through the greed of those factions who are ever anxious to pose as teachers and acquire the title of Professor, and partly through a pernicious system which permits universal suffrage, regardless of illiteracy, familiarity with the English language and the principles of government, whereby the petty politicians fill legislative halls almost to the total exclusion of men of education and talent. Another fault is that each commonwealth is permitted to regulate medical practice within its own borders instead of the same being a prerogative of general government. Ere any radical reform can take place there must be a uniformity as to rules and regulation of practice in all the States. To-day the man who cannot practice in Virginia and North Carolina finds Pennsylvania, New York, Illinois and other States open to him. Those who are unable to meet the qualifications of the latter find no restrictions

in Michigan, Indiana, Kentucky, etc. What can be expected when the demands made of the practitioner are so widely varied within the borders of our own country!

Again, the multiplication of medical schools, until there are now existent more than two hundred—schools started chiefly in the interests of individuals seeking to advertise themselves and attain the *eclat* supposed to accrue to the title of "Professor"—only add to the muddle. A large proportion of these institutions are a disgrace to the country and to the profession, for they employ every artifice to attract students to their halls, even going so far in many instances as to send abroad announcements that point out how easy and in how brief a period their degrees can be had with almost a nominal expense, and likewise lay stress upon the fact that the western hemisphere offers a very vast field for the half-educated practitioner. Is it any wonder an "American degree" is scorned abroad? In fact these concerns place a premium upon charlatanism, ignorance, stupidity and incompetency; and of what value is a code of ethics applied to the products of such a system!

Why is it that certain college catalogues exhibit such an array of students from Canada? Three such that lie before us give evidence that ninety per cent. of their patronage is from Ontario and Quebec. Is it that a better curriculum is afforded than that provided in the different Provinces of the Dominion? Far from it. These concerns bid for students by sending their literature broadcast into Ontario, Quebec, Manitoba and even the Maritime Provinces. They announce frankly that cheap medical education with a minimum of study is open to those who desire it; that no preliminary qualifications are demanded that cannot be circumvented—that entrance examinations are mere farces. The result is the attendance is made up of individuals of a very mediocre type—men who lack any form of education or training that will fit them for judiciously or judicially considering the problems that are daily presented to the student and practitioner. They are recognized both here and at home as unfit to study in Canada, but are urged to come within our borders and take upon themselves duties which they are even unfitted to fully understand or grasp, for once graduated they cannot return to their native heath to practice, but perforce must swell the great army of incompetents that we always have with us, and that are the fostering care of petty politicians and legislators. Atop of this there are always, of course, a number of competent gentlemen who leave the universities and colleges of the Dominion for the United States under the impression that the latter offers a more comprehensive field, and that their own country is already overcrowded with practitioners. They are perhaps not needed here, but are gladly welcome as brethren of reputable character and education. Indeed it would be difficult to do otherwise, yet the query must occasionally suggest itself: Is this just to ourselves, considering the fact there is no reciprocity? The man on the hither side of the border, ere he can practice in Canada, or even be permitted to prove his competency to the satisfaction of a Canadian Council, must pass a matriculation examination the same as for entrance to the Department of Arts in any college, then take a course in a Canadian medical school.*

We would not like to see the Canadian standard lowered, neither are we inclined to demand the reciprocity which we feel is in a measure our due, inasmuch as it would not be just or neighborly to permit the Dominion to be overrun by the great mass of incompetents which possess our own borders. The real demand is that the standard of medical education in the United States be rendered uniform and elevated to a par of that in Canada; then, and then only, will reciprocity be possible, not alone with Canada, but every civilized country. Bar out the incompetents everywhere with the same iron hand which obtains on Canadian soil: Crush superfluous medical colleges with their would-be teachers and professors: Permit no school to exist that is not endowed beyond the necessity of gathering tuition and graduation fees for the payment of its teachers. In this way only can ignorance and incompetence be stamped out; and even should such a measure be put

*Along the border the utmost courtesy is extended, as a rule, to American practitioners called in consultation, etc. It is not legal, but exemplifies the fraternal feeling that here exists, and should prevail everywhere.

in force to-morrow, it would require the better half of a century to fully carry out the provisions of such an act and raise the profession as a whole to the standard which it should attain. Professorships should be matters of professional competition, instead of, as at present, the products of self-election and rewards of medico-political affiliations.

The bill at the present moment before the Michigan State Legislature, having in view the regulation of the practice of medicine, apparently is doomed to early strangulation. It is not radical enough to please some, it is too radical for others; it is intended to throw a sop to the charlatans which will minimize their opposition, but is the form of act that invariably appears to produce the opposite effect. Time and again bills have been introduced, but all seem to meet with the same untoward fate and doubtless for the reason, first, that the legislative halls are filled with men unfitted to judge of the needs of the community at large,—educated, rational and business-like legislators are rapidly becoming a rarity as a result of the pernicious system whereby politics is rendered a trade instead of a trust, and a means of earning daily bread; second, any practice act that in itself recognizes *pathies* and *isms* carries the certain seeds of dissension and failure. No matter how dogmatic a man may be, he does not like to be told of, or stamped with, it! What matters the peculiar therapeutic belief of an examiner providing he is thoroughly grounded in the fundamental principles of medicine? The day has gone by when it is either reasonable or practicable to either legally uphold or advertise an exclusive dogma. How absurd would it appear if a man's Christianity was required to be tested before a mixed board of Anglicans, Catholics, Presbyterians, Lutherans, Baptists, etc.! The only requirement for membership on a board of medical examiners should be sound medical education, the attributes of a gentleman, and entire lack of affiliation in medical teaching and with politics. If you sink sectarianism, your neighbor is usually more than willing to meet you half-way, and some concessions are essential to harmony and success.

In speaking favorably of the medical practice acts of the Dominion it must be remarked that they are not absolutely identical in all of the Provinces; nevertheless the graduates of all Canadian schools stand upon an equal plane in the matter of obtaining license to practice in any one commonwealth. The standard of Ontario is somewhat higher than that in Quebec, hence students from Ontario schools find it easier to obtain recognition in the latter Province than in their own; but the Quebec schools provide for this by endeavoring to reach a pinnacle in teaching that will more than meet the demands of the Ontario Council. The time doubtless is not far distant when the educational qualifications in all the Provinces will be practically the same.

Considering the experience to be obtained from the Canadas, the wonder is that like measures do not obtain to the hither side of the border; there no *pathies* or *isms* are recognized by law. Is it not in a measure true, as has been claimed by some of our Canadian brethren, that the fault lies in our general educational system and in an unrestricted immigration whereby the education and standing of the public at large is rendered much inferior to that which obtains to the Dominion?

A MOVE IN THE RIGHT DIRECTION.

The following recommendations were recently adopted by the Medical Association of the District of Columbia:

That every institution for medical charity shall require from every applicant for relief in a hospital or dispensary a written certificate to be obtained as hereinafter provided; emergency cases are to be excepted from the operation of this rule:

That such certificate be obtained from physicians to the poor, the Board of Associated Charities, and any registered physician:

That cases of sick and injured persons found upon the streets, in the stations, or elsewhere, who require immediate treatment, shall be carried to the Emergency Hospital, or the nearest hospital having an emergency service, or to their homes if so directed by the patient or his friends:

That emergency patients shall not be detained longer in such institutions than the necessity of the case imperatively demands, but shall be discharged from the service and sent to their homes or to some public hospital, as the patient may elect:

That members of this Association shall be entitled to the privilege of attending private patients occupying private rooms in any of the public hospitals of this city:

That in future the members of the medical staffs of hospitals when attending medical or surgical cases in private pay-rooms shall insist upon proper payment for their services, except in the case of such patients who are clearly unable to pay for same:

That whenever the medical staff or a majority thereof of a hospital or dispensary resigns, and when after due hearing this Association finds that the resignations were for just and sufficient cause, it shall be forbidden for any member of this Association to accept a position on the staff of said hospital or dispensary:

That whenever one or more members of the medical staff of a hospital or dispensary are dismissed, and when after due investigation this Association finds that such dismissal was without just and sufficient cause, it shall be forbidden for any member of this Association to fill the vacancy created thereby:

That complaints made under Rules VII and VIII shall be made in writing to the Standing Committee, which after due consideration shall report its findings to the Association.

It would be well if every medical society would adopt similar rules, *and adhere to them.*

A MEDICAL COURT OF HONOR.

Owing to the recent scandals in Paris, in connection with the procuring of abortion and other abuses of gynæcological surgery—to use a polite euphemism—the establishment of an "*Ordre des Médecins*" is suggested, the purpose of which will be to purge the profession of all disreputable members, and to suppress all disreputable practices—in fact, as *The Practitioner* of London points out, "to generally act the part of keeper of the professional conscience," a procedure much more readily provided for in the abstract than in the reality. Our London contemporary calls attention to the fact that the General Medical Council is supposed to perform for the medical profession of England what the *Ordre des Médecins* is expected to do in France, and that the former "has conspicuously failed to keep the medical fold free from black sheep or tainted wethers."

In other words, people utterly devoid of morals cannot be governed perfectly by any moral code, even if backed by legal authority, which the General Medical Council of England is not, nor do we understand there is any thought of giving the French body any such status.

EDITORIAL NOTES.

Small- versus Large-bore Firearms.—

It having been found that the bullet of the small-bore rifle now used by the English army drilled a hole in the advancing assailant so minute and so clean that it failed to stop him in his rush, and even left him ignorant for a time that he had been wounded at all, the military authorities have now decided to adopt a new projectile, invented by a Captain Clay, which, by spreading and bursting the nickel shell, effects a terrible destruction of the bone and tissue perforated.

Of course this sounds barbarous, and is calculated to add to the horrors of war. But it must be borne in mind that the function of rifle-bullets in war is not to give satisfaction, but on the contrary the greatest possible dissatisfaction, to the enemy advancing upon the line.—*Scientific American Supplement.*

Newspaper Wit.—

An item is going the rounds of the press, both medical and general, to the effect that a man constantly in fear of becoming unconscious, of being carried to a hospital, and operated upon before diagnosis has been made, carries in a conspicuous place in his clothing the inscription: "My appendix has been cut out."

This is undoubtedly the invention of some would-be newspaper wit. Nevertheless it carries with it a moral. It is notorious that operations for diagnosis are entirely too frequent, consequently it behooves every medical man to "go slow," and if of the younger rank to await the advice of counsel and the result of careful deliberation.

A Step Backward.—

There has been introduced recently into the Massachusetts Legislature "an Act to restore medical freedom to the people, etc.," which not only provides that "all citizens of the State of sound mind, not under conviction for crime, shall be entitled to the right to select their own physicians, employ them and compensate them for their services," but is intended to repeal all former acts that are inconsistent with this, and likewise abolish the Board of Registration in Medicine.

From the sound of the foregoing one might imagine that the bill originated in Michigan.

A New Anæsthetic.—

It is now announced that the odoriferous secretion of *Mephitis mephitica—Anglice*, the common skunk—is a powerful anæsthetic.

Well—it ought to be! But we doubt very much its *practical* utility. It is probable the secretions of all the Mustelidæ partake more or less of this character. Even the product of the gland of the beaver (Castoreum) is to some extent anæsthetic when employed in solution, subcutaneously, but nevertheless is not available, for obvious reasons.

Lord Kinnear.—

A paragraph is going the rounds of the medical press to the effect Sir Joseph Lister has been raised to the peerage and taken the title Lord Kinnear. The latter part of the item is utterly false and had its origin doubtless in the silly brain of some reporter. The new title of the great apostle of asepsis is simply Lord Lister.

Another Convert!—

And now the Fort Dodge (Iowa) *Post* has announced it will no longer accept quack advertisements in its columns. If the general lay press will follow the good example, and the medical press uphold as severely as they now criticize, the days of the charlatan will speedily be numbered.

A New Ray.—

A London dispatch from Vienna to the *Daily Chronicle* says that Friederich, of Elbing, has notified the Vienna Academy of the discovery of a new ray superior to that of Roentgen, and which will infallibly determine in a subject whether death or catalepsy has intervened.

The Maritime Medical News.—

We are pleased to see that our Nova Scotia contemporary with the new year has come out in enlarged form and with a new dress; what is more, it has enlarged its scope. We wish it all the great success in the future that it has had in the past, which is fully deserved.

Chorea.—

Doctor Taylor of Philadelphia asserts this malady is exceedingly rare among negroes. He has encountered but three.

Items and News.

A Novelty; "Scorpion Oil."—

I came across the following popular antidote to snake-bites when at Kandersteg. Since my return to England I have written to the guide, Abraham Müller, and here give the substance of his answer to my request for more exact details.

Every year Italian scorpion-sellers traverse Switzerland, especially the mountain-valleys thereof; in the lower land and towns the remedy can be obtained at the chemists', and these buy their scorpions direct from Italy. It is usual to take, say, a half litre of good olive oil (at the time he told me it was walnut oil; perhaps this is commoner and cheaper), and throw therein about ten living scorpions. The scorpions are left in the oil until they die—say twelve or twenty-four hours. They are then taken out and thrown away, or the oil is poured off them into a bottle.

In the case of poisonous snake-bites, or poisonous "*Insektenstichen*," the wound is first, if possible, washed out with salt water. The scorpion oil is then rubbed in, and all round over the swollen part, the rubbing being towards the wound.

In the case of other "*Giechtigen*,* *Schnitten*, *Stichen*, *Guetschungen*, *gichtigen Geschwülste und dergleichen*," the oil is applied in like manner, only it is not poured into the wound, as it is too "*scharpf*."

The custom is centuries old, and (my informant believes) very widely spread in Switzerland. He could find out more details, if required, from a chemist.

In general the application is external only; but there are men who, when suffering from great internal pain of which they do not know the cause, drink some drops of the oil in chamomile tea. (Result not stated!) The scorpion oil is used for men and animals alike.

It seems to me that, since the oil rubbed into the wound caused by a snake or an insect doubtless contains some scorpion poison, the above is of interest in connection with the recent experiments in inoculation.—W. LARDEN, in *Nature*.

Rheumatism and Walnut Lore.—

"I will put one of these walnuts into my pocket," said a gentleman who was sitting

*I think that *Giechtigen* must be an error for *giftigen;* it cannot well be *gichtigen* when used with *Schnitten*. My knowledge of German does not enable me to translate *Guetschungen* or *Gnetschungen*. I have given these few words in the German to avoid confusion.

beside me at dinner the other day. "I carry a walnut about in my pocket to prevent rheumatism."

I had heard of a great many queer cures for rheumatism, but here was a brand new one—a walnut! I know a gentleman who carries a small potato in his pocket as a preventive of rheumatism, and does not know whether it is a foolish thing or not, but on several occasions when he left his potato at home he really felt twinges of rheumatism. In New England many folk used to tie a snake-skin round the neck for "rheumaticks;" while in Georgia, and generally throughout the South, the negroes and even the whites carry the right forefoot of a rabbit to ward off attacks of rheumatism. All this passed through my mind while I replied, in tones of curiosity, "A walnut?"

"Yes. It is also a cure for toothache. I first heard of the cure in the country, where it was known to work. I tell you there is really something in it."

Indeed, there is more in walnut lore than is dreamt of in my neighbor's philosophy. The use of the walnut for rheumatism—however whimsical such a practice may seem nowadays—is a relic of those old superstitious notions which, under one form or another, have clustered round the tree. These notions run back to pagan days.—VANCE, in *Lippincott's Magazine.*

Peculiarities of Men of Genius.—

Peculiar inclinations and other mental idiosyncrasies of men of genius can mostly be very readily explained. Everybody accustomed to study and dissect psychologically those whom he meets, so far as opportunity is afforded, is familiar with the remark that each individual of the human race has his peculiarities, more or less odd—his "weaknesses." The ordinary man, if he has the least breeding, has been accustomed from his youth up to hold in check one inclination or another which violates the usages of society, or even perhaps of good morals; he has learned to attend sufficiently to his own conduct not to allow habits to take root which might appear unusual or be disagreeable to others. But the man of genius is far too much governed by his inward processes, his fancy, and his work, to pay attention to trifling details of manner; he therefore appears what he really is, while the average man would not do this; consequently, chance peculiarities and special inclinations appear in the former more than in the latter.

Thus it is that the behavior of great men is not to be measured by the same standard as that of others, that we have to take account of the motives of their actions, and that the psychical conditions must be kept in view if we are to draw any trustworthy inferences from their behavior. Those mighty natures must be judged from their own organization, and not from the Philistine point of view of the so-called average man.—HIRSCH, in *Popular Science Monthly.*

Poetical Genius in Advertising.—

"Sweet are the uses of advertisement," and now-a-days nothing is safe from the ingenuity of the advertiser—neither art, nor letters, nor all the other sciences. Here are a few specimens:

To thine own self be true,
And it must follow, as the night the day,
  Thou canst not then dispense with Muggins' Soap.

Oh, for the touch of a vanished hand
  And the sound of a voice that is still;
But, alas! she knew not the virtues grand
  Of a Blaud's dyspepsia pill.

Rock me to sleep, mother, rock me to sleep,
In one of Smith's cradles, so pretty and cheap.

Lars Porsena of Clusium?
By the nine gods he swore
That Snip and Son's three-guinea suits
  He'd wear for evermore!

Full many a gem of purest ray serene
Glitters like mirrors polished with Scourene.

—*Indian Planters' Gazette.*

Depths of the Ocean.—

By slow degrees we are getting to know the contour of the sea-bottom almost as well as we do that of the surface of the land, but it cannot be said that we have found the deepest water of the earth. Depths of 15,000 to 27,360 feet have been reached in the north Atlantic from time to time, and one of 27,930 feet was discovered in the north Pacific off the eastern coast of Japan, where there is a remarkable gulf or depression. All these measurements have, however, been outstripped by one recently taken south of the Friendly Isles, in the south Pacific, by H. M. S. *Penguin.* A depth of 29,400 feet had been marked when the sounding wire gave out before the lead had reached the bottom. A fresh sounding will, therefore, have to be made before we can tell the full depth of the water at this spot.—*Public Opinion.*

In Place of Grafts.—

A process has been patented in Germany for making a substitute for the natural skin for use in wounds. The muscular coating of the intestines of animals is divested of mucous membrane, and then treated in a pepsin solution until the muscular fibres are half-

ligested. After a second treatment with annin and gallic acid, a tissue is produced which can take the place of the natural skin, and which, when laid on the wound, is entirely absorbed during the healing process.—*New York Medical Times.*

The Advent of Mahogany.—

It appears, according to a German exchange, that mahogany wood originally was sent to a certain Doctor Gibbon, of London, by a friend, as a remedial agent, it being stated that this wood was being used by certain Indian tribes as a febrifuge. Results of his trials proving negative, Gibbon ordered a desk fashioned out of the block, and, being struck by the beauty of the wood, he relinquished his practice and became an importer of mahogany wood instead.—*Western Druggist.*

Identification of Acetanilid, Phenacetin, and Antipyrin.—

If a small quantity of any one of these be placed in a dry test-tube, a little chloride of zinc added, and the whole heated, aromatic vapors will indicate acetanilid; odor of acetic acid, phenacetin; and an odor resembling that of fresh carbon disulphide, antipyrin.—*Canadian Pharmacist.*

A Prize.—

Doctor: Just place this thermometer under your tongue, Mrs. Peque, and keep your lips closed tightly.

Mr. Henry Peque (after a few minutes of speechless delight): What will you take for that instrument, Doc.?—*Puck.*

"Yankee Doodle."—

The author of this well known song was an English army surgeon named Schuskburg. The tune, however, is so old that its origin is unknown. It was originally that of an old English song entitled "Lucy Locket."

Odorless Castor Oil.—

It is said oleum ricini can be rendered practically inodorous by washing with hot water and allowing the mixture to stand long enough for the oil and water to separate completely.

Why?—

An Irishman asked a Scotchman one day why a railway engine was always called she. Sandy replied: "Perhaps it's on account of the horrible noise it makes when it tries to whistle."—*Pearson's Weekly.*

Book Reviews.

GENITO-URINARY AND VENEREAL DISEASES. By J. William White and Edward Martin, M.D. Cloth; 8vo; pp. 1061. Price, $6.00. J. B. Lippincott Co., Philadelphia.

This work presents clearly and with sufficient detail the generally accepted teachings of the day in regard to pathology, symptomatology, diagnosis and treatment of syphilis and genito-urinary diseases.

The authors have been at great pains to estimate the comparative value of the various methods of treatment that are considered orthodox, and have given chiefly that which their experience has led them to prefer, though alternating methods have not been neglected. As the attempt has been to make a work of extreme practical value to the physician, considerable space has been devoted to symptomatology, diagnosis and treatment, while pathological alterations are briefly outlined, avoiding discussion of questions that are still mooted. Considerable stress has been laid upon genito-urinary antisepsis and the details of operative and manifestive technique. Modern methods of examination have been described with fulness; and there is an exceptionally comprehensive study of changes of urine and its constituents as produced by disease, a subject which is so vitally connected with the specialty to which this volume is devoted, and which has received much more attention here than it has usually in works of this class. As a whole the volume is very comprehensive, thorough, and practical, and one no general practitioner can afford to be without.

THE STANDARD FORMULARY. By Albert E. Ebert, Ph.M., Ph.D., and A. Emil Hiss, Ph.G. Cloth; 8vo; pp. 500. Price, $4.00. G. P. Engelhard & Co., Chicago.

This work, most valuable alike to druggist and physician, is now issued in a second and revised edition. It comprehends a collection of nearly five thousand formularies for pharmaceutical preparations, domestic remedies, toilet articles, veterinary remedies, soda fountain requisites, and miscellaneous preparations especially adapted to the requirements of the retail druggist.

Far from being a mere compilation of formulas drawn from miscellaneous sources, as is generally believed, this volume embodies only a store of formulæ carefully selected and thoroughly tested. The British, German, French, Swedish, Norwegian, Belgian, Austrian and Italian Pharmacopœias, as well as the Dispensatories, etc., of the United States, have all been laid under contribution—it is especially replete in preparations from eclectic sources.

Part Third gives the ingredients and quantities of preparations similar to the proprietary medicines on the market.

All in all this is the most valuable work of its kind that has ever appeared from any place or in any language.

A System of Practical Medicine. By American Authors. Edited by Alfred L. Loomis, M.D., and William G. Thompson, M.D. Volume I; cloth; 8vo; pp. 985. Price, $5 00. Lea Brothers & Co., Philadelphia and New York.

This is promised as a thoroughly practical work of ready reference for the general practitioner. Volume I deals with the Infectious Diseases, Malaria being treated by W. H. Welch and William S. Thayer; Dengue and Dysentery, by H. A. West; Typhoid Fever and Influenza, by J. C. Wilson; Typhus, by W. Coleman; Yellow Fever, by George M. Sternberg; Epidemics of Cerebro-Spinal Meningitis, by T. S. Latimer; Erysipelas, by George Dock; Pyæmia, by P. E. Atkinson; Scarlet Fever, by P. G. Robinson; Rubeola Rubella and Pertussis, by J. P. C. Griffith; Diphtheria, by W. H. Park; Tuberculosis, by W. Osler; Syphilis, by W. F. Robinson; Leprosy, by Isadore Dyer; Tetanus, by James Stewart; Obscure Infectious Fevers, by W. B. James; Smallpox, Varioloid, Varicella and the Plague, by William Welch.

The three volumes to follow will, like this, be fully illustrated in colors and in black.

Totem Tales. By W. S. Phillips. Buckram; 16mo; pp. 326. Price, $1 50. Star Publishing Co., Chicago.

This volume presents a series of thirty-one Indian stories as told by the Indians of the Pacific Northwest directly to Mr. Phillips, who enjoys the rare distinction of being not only a writer of vigor and originality, but also an artist of ability. The volume is illustrated by 250 original pen drawings, which depict to a wonderful degree the superstitious traits of the savage and the weird characteristics of their tales.

These are not ordinary stories *regarding* Indians, but real myths, legends and folklore, taken down from the lips of tribal story tellers, of which each tribe has one specially trained to this duty, and whose province it is to preserve tribal traditions and in turn hand them down to their sons in the very words received by them from their fathers.

The volume as a whole is a very valuable contribution to the folklore of North America.

A Clinical Treatise on Diseases of the Skin. By J. Nevins Hyde, A.M., M.D. Cloth; 8vo; pp. 815. Price, $5.25. Lea Brothers & Company, Philadelphia and New York.

It is significant of the recognized value of this work that the demand for a second edition appears so soon—far earlier than was anticipated by either author or publishers. Doctor Hyde has impressed upon the volume the stamp of experience with a clearness that makes it of the highest service as a practical guide as well as a text-book; thus it answers the needs of the general practitioner, the specialist, and the student.

The new edition has been revised throughout, yet nevertheless bears evidence of the improvement made possible by the advance of dermatology. It has also been enriched with new engravings and colored plates, there being 110 of the former and 16 of the latter.

Lectures on Renal and Urinary Diseases. By Robert Saundy, M.D. (Edin.). Cloth; large 12mo; pp. 434. Price, $2.50. W. B. Saunders, Philadelphia.

The success of these lectures has induced the author to publish a second edition thereof. They have been carefully revised, much new matter added, as well as a fourth section on miscellaneous affections of the kidney, which make the volume very complete as a work of reference. It is finely illustrated also, there being no less than sixty-seven woodcuts and four colored plates, the majority of which are taken from life or from specimens in the author's possession. There is no better authority than Doctor Saundy, and the work is very thorough and complete, each chapter moreover having a complete bibliography added, which tends to further promote its value.

The American Year-book of Medicine and Surgery. By George M. Gould, M.D. Cloth; 8vo; pp. 1257. Price, $6.50. W. B. Saunders, Philadelphia.

This is perhaps one of the most important of all publications for the dissemination of medical knowledge. In these days when medical literature has become so comprehensive and voluminous, it is simply impossible for the medical practitioner to keep abreast of the times without a reliable compendium, such as is this. Doctor Gould is known as one of the most reliable, careful and painstaking of authors, consequently any utterance of his carries the desired authority. This is the second volume of the same character from the pen of Doctor Gould, and that there is little left to be said is evidenced by the fact both are equally replete and authentic.

A Manual of the Practice of Medicine. By A. A. Stevens, A.M., M.D. Cloth; 12mo; pp. 511. Price, $2.50. W. B. Saunders, Philadelphia.

The articles on Malaria, Diphtheria, Empyema, Chlorosis, Pernicious Anæmia, Leukæmia, and Myxœdema have for the most part been rewritten.

Bijou's Courtships. By Katherine Berry di Zerega. Cloth; 16mo; pp. 297. Price, 75 cents. F. Tennyson Neely, New York and Toronto.

This is one of the delightful French romances for which "Gyp" is famous, and without a dull line from beginning to *finis*.

ELEMENTARY BANDAGING AND SURGICAL DRESSING. By Walter Pye, F.R.C.S. Flexible cloth; 24mo; pp. 218. Price, 75 cents. W. B. Saunders, Philadelphia.

The title sufficiently explains the scope of this work, which has been revised and in part rewritten by G. Bellingham Smith, F.R.C.S., the surgical registrar of Guy's Hospital.

THE YOUTH'S COMPANION CALENDAR. Perry Mason & Company, Boston.

The Art Calendar for 1897 which has been put forth by the *Youth's Companion* is delightfully original and artistic. In fact this periodical's calendars promise to become a feature of every well-regulated household in the country. The one before us is the most costly of its kind that has ever been issued by Perry Mason & Co., who are noted for sparing no expense in matters of this kind. It is printed in twelve colors, making a true reproduction of the original water-color paintings; its size is 10½ by 24 inches; it is arranged in four panels, each containing a full length picture of a beautiful maiden most becomingly and appropriately attired for the season she represents, and it is equally adapted for framing for an ornament for mantel, centre-table or writing-desk. It is given free to all new subscribers to the *Companion* for 1897, and also to all old subscribers who have lapsed and renew their subscription. An illustrated Prospectus will be sent on application.

MCCLURE'S MAGAZINE. Price, 10 cents; $1.00 per year. The S. S. McClure Co., New York.

The March issue opens with a paper on "Telegraphing Without Wires," by H. J. W. Dam. Other articles are: "St. Ives," by Robert Louis Stevenson; "Grant's Quiet Years at Northern Posts," by Hamlin Garland; "Daniel Vierge, the Master Illustrator," by A. F. Jaccaci; "Captains Courageous" (VIII–IX), by Rudyard Kipling; "The Lady in a Box," by Clinton Ross; "A Night with Stanton in the War Office," by J. M. Thayer; "Huerfano Bill, the Bandit," by Cy Warman; "The Laureate of the Larger England," by W. D. Howells; "A Note on Skipper Ireson," by John Codman; "Life on a Greenland Whaler," by A. Conan Doyle.

LIPPINCOTT'S MAGAZINE. Price, 25 cents; $3.00 per year. The J. B. Lippincott Co., Philadelphia.

The complete novel in the March issue is "Dead Selves," by Julia Magruder; George E. Walsh writes of "Farming Under Glass;" "Origin of Pennsylvanian Surnames" is by L. Oscar Kuhns; "Father Sebastian," by Kate Jordan; "The Deserts of Southeast California," by J. E. Bennett; "Sue's Weddin'," by Minna C. Hale; "In the Manuscript Room of the British Museum," by D. C. Macdonald; "Innocuous Vanity," by Ellen Duvall; "The Phantom Kangaroo," by Owen Hall; "A Dilemma of the Day," by Helen F. Lovett; "The Contributor His Own Editor," by F. M. Bird.

JOURNAL OF COMPARATIVE NEUROLOGY. Price, $3.50 per year. C. L. Herrick, Granville, Ohio.

The September and December numbers of this quarterly have been merged into one grand double issue of 210 pages, which presents the following most interesting table of contents: "The Brain of the Bee"—a preliminary contribution to the morphology of the nervous system of the Arthropoda, by F. C. Kenyon, Ph.D. (illustrated); "The Origin and Growth of Brain Cells in the Adult Body," by Howard Ayers; "The Innervation of the Auditory Epithelium in Mustelus Canis" (De Kay), by A. D. Merrill; "Neural Terms, International and National," by Burt G. Wilder.

AMERICAN KITCHEN MAGAZINE. Price, 10 cents; $1.00 per year. The Home Science Publishing Company, Boston.

The chief papers in the March issue are: "Luncheons and Teas," by Alice E. Moore; "Housekeeping in a Boston Apartment," by Mary J. Lincoln; "The Chemistry of Cooking and Cleaning," by Ellen H. Richards and Maria Elliott; "A Model School Kitchen," by Emily Merrill; "Experiments with Milk," by Angeline M. Weaver. Other notable contributions are: "Curious Charms for Butter Making;" "My Talks with the Captain;" "Foods in Disease;" "An Exhibit of Domestic Art and Science." There are the usual departments.

VICK'S MAGAZINE. Price, 5 cents; 50 cents per year. Vick Publishing Co., Rochester.

The February number is a most delightful one, and one of the most artistic that has ever been issued by the Vicks. Among the most prominent articles are: "Native Trees and Flowers of North Georgia;" "A Wellesley Rock Garden;" "Some Valuable Japanese Plants;" "Plants as Foster-Mothers;" "Notes on Beets;" "Chrysanthemums for Amateur Culture;" "How to Raise the Tuberose;" "Collecting Orchids;" "The Groundsel Tree;" "Spring and Summer in My Garden;" "Pedigree Strawberry Plants;" "Sowing Some Kinds of Seeds;" "The Casabanana."

THE PROFESSIONAL PHOTOGRAPHER. Price, 10 cents; $1.00 per year. The Nesbitt Publishing Co., Limited, Buffalo, N. Y.

The February issue is particularly interesting. The illustrations are from the studio of E. F. Hall, of Buffalo, and are very superior. The contents embody papers on "How to Wash Prints;" "Natural Plants in Studios;" "How to Color Photographs;" "Mounts;" "Photographic Failures;" "Bromide Prints;" "Copying Reflections;" "Making Enlargements;" and "The Library of the Future." There are also reports of several photographic conventions, correspondence, and the usual departments.

THE CANADIAN MAGAZINE. Price, 25 cents; $2.50 per year. Ontario Publishing Co., Toronto.

The notable contributions in the issue for March are: "What Shall the Tariff Be?" by J. W. Longley; "The University of Manitoba," by James Lawler; "A Canaan Moose Hunt," by W. C. Gaynor; "The Breaking Out of Sally Daggs," by Kate Sullivan; "A Page from the Early History of Newfoundland," by Mrs. J. D. Edgar; "The Guest of Gamache," by J. Macdonald Oxley; "Reciprocity Trips to Washington," by A. H. U. Colquhoun; "London's Tragic Tower," by William Harrison. There are the usual departments.

APPLETON'S POPULAR SCIENCE MONTHLY. Price, 50 cents; $5.00 per year. D. Appleton & Co., New York.

In the March issue W. Z. Ripley writes of "The Racial Geography of Europe;" "Principles of Taxation" (VII), by David A. Wells; "Confession of a Normal-School Teacher," by M. H. Leonard; "The Malarial Parasite and Other Pathogenic Protozoa," by G. M. Sternberg; "Stability of Truth," by David Starr Jordan; "A Year of X-Rays," by D. W. Hering; "The Blaschka Flower Models of the Harvard Museum," by Marcia E. Hale; "The Cliff-Dweller's Sandal," by Otis T. Mason; "India-rubber and Gutta-percha," by Clarke Dooley. There are the usual departments.

OUTING. Price, 25 cents; $2.50 per year. The Outing Publishing Company, New York.

The March issue is a very strong number, carrying a wealth of beautiful illustrations. Prominent among its many good things are: "The Pointer," by E. W. Sandys; "Maximus," a complete story by Adene Williams; "Cruising Among the Salt Lake Islands," by Ninetta Eames; "Something About Siam," by E. M. Allaire; "Through the Land of the Marseillaise," by Birge Harrison; "Quick Photography Afield," by Doctor John Nicol. Many breezy sketches of sport and adventure complete the long list of attractions.

THE PHRENOLOGICAL JOURNAL. Price, 10 cents; $1.00 per year. Fowler & Wells Company, New York.

The principal subjects in the March issue are: "Reverend F. B. Meyer, B.A.," by Jessie A. Fowler; "The Organ of Continuity," by D. T. Elliott; "Convincing a Skeptic," by E. E. Youmans; "Zuker, the Convicted Firebug," by Nelson Sizer; "Anthropology—The Flathead Indians," by J. A. Fowler; "Phrenology in its Birthplace," by M. W. Ullrich. There are the usual editorials and departments devoted to Science, Child-culture, Character Sketches, etc.

NORTH AMERICAN REVIEW. Price, 50 cents; $5.00 per year. North American Review Co., New York.

The opening pages of the March number are devoted to a paper on "The Famine in India," by Edwin Arnold; "Prison Labor" is considered by Carroll D. Wright; "How to Reform Business Corporations" is discussed by V. H. Lockwood; M. G. Clemenceau contributes the second and concluding portion of his paper on "The French Navy;" "The Railway Problem," by Lloyd Bryce; "In Defence of Kansas," by Edwin Taylor.

METAPHYSICAL MAGAZINE. Price, 25 cents; $2.50 per year. Metaphysical Publishing Co., New York.

The March issue contains: "The Divine Paradox," by Hudor Genome; "The Sphinx and 'Being'" (XX), by C. H. A. Bjerregaard; "What Survives in Man," by A. L. Mearkle; "The End, or Good," by J. C. Lipes; "Affinity of Souls," by Marie L. Bird; "A Pivotal Philosophy," by C. B. Newcomb; "Our Place in Life," by L. K. Read. There are the usual departments

THE DECORATOR AND FURNISHER. Price, 20 cents; $2.00 per year. The Art Trades Publishing and Furnishing Co., New York.

The March issue contains: "Articles of General Interest to Women;" "Art Matters;" "Some Suggestions Concerning Home Decorations," etc.; "Guide to the Styles;" "The Sense of Beauty;" "Wood Carving for Amateurs;" "Picturesque Interiors;" "An English Dining Room;" "The Decorators of Twenty Years Ago" (conclusion); "Porcelain, Pottery and Glass."

THE COSMOPOLITAN. Price, 10 cents; $1.00 per year. The Cosmopolitan Publishing Co., Irvington, N. Y.

A feature of this magazine for the current month is a vigorous editorial by John Brisben Walker, the editor, on "The First Essential for Prosperity." This is followed by a paper on "Methods of Banking," by T. L. James. A. Conan Doyle, Theron C. Crawford, William Marc Chauvenet, T. C. Connery and Montague Stevens are among the contributors in lighter vein.

THE MIDLAND MONTHLY. Price, 15 cents; $1.50 per year. Johnson Brigham, Des Moines, Iowa.

In the March issue H. H. Guy writes of "Japanese Farming;" "Across Country in a Van" is by Mary A. Scott; "Grant at Vera Cruz and Cerro Gordo" is an installment of Colonel Emerson's "Grant in the West;" "Disillusioned" (concluded), by Maria Weed; "The Young Homesteaders," by Frank W. Calkins; an Indian legend by G. C. Teall; "Bjornstjerne Bjornson" is by J. Christian Bay.

SCRIBNER'S MAGAZINE. Price, 25 cents; $3.00 per year. Charles Scribner's Sons, New York.

The March issue contains: "The Banderium of Hungary" and "Soldiers of Fortune" (V–VIII), by Richard Harding Davis; "The Master of the Lithograph," by Elizabeth R. Pennell; "The Story of a Play" (I–III), by W. D. Howells; "The Business of a Factory," by Philip G. Hubert; "The Art of Travel," by Lewis M. Iddings; "London" (II), by C. D. Gibson. There are the usual departments.

THE OSPREY. Price, 10 cents; $1.00 per year. The Osprey Company, Galesburg, Illinois.

The February issue contains: "The Kinglets and Their Distribution," by Edwin E. Haines; "The Brown Pelican on Indian River," by Doctor Morris Gibbs; "The Circling Loon," by R. M. Barnes; "Are Green Eggs of Red-tailed Hawk Rare?" by Benjamin Hoag; "Fly-catchers of Minnesota," by Walton I. Mitchell. There are "General Notes" and the usual departments.

REVIEW OF REVIEWS. Price, 25 cents; $2.50 per year. Review of Reviews Co., New York.

The special features of the March issue are a character sketch of Lyman J. Gage, by Moses P. Handy; "A Study of Queen Victoria's Sixty Years' Reign," by W. T. Stead; "A Plea for a Rational System of Naming the Indian Wards of the Nation," by Frank Terry, superintendent of the Crow Indian School in Montana.

Therapeutic Brevities.

Cocaine in Surgery.—The use of cocaine should not be abandoned because its irrational employment has produced deleterious results:

Always make a thorough physical examination of the patient before injecting the drug:

It should not be used in cases showing organic diseases of the brain, heart, lungs, or kidneys, or in persons of neurotic diathesis:

Children bear it fully as well as adults:

The patient should always be placed in a recumbent position prior to its employment:

Constriction should be used whenever possible to limit the action of the drug to a desired area:

Use a freshly prepared solution for each case:

Distilled water should always be employed, to which phenic, salicylic, or boric acid should be added:

A two-per-cent. solution has a better effect, and is safer than solutions of greater strength:

Never inject a larger quantity than one and one-eighth grains when no constriction is used:

About the head, face, and neck, one-third of a grain should never be exceeded:

When constriction is possible, the dose may be as large as two grains:

Every slight physiological effect is not necessarily to be taken as cause for alarm:

Cocaine does have effect upon inflamed tissues:

In case alarming symptoms occur, use amyl nitrite, strychnine, digitalis, ether, or ammonia.—*Clinical Journal* (London).

Gonorrhœa.—Repeatedly, in recent years, have I seen citric acid mentioned in medical journals as a local remedy in gonorrhœa; the theory is, the germ cannot survive in an acid medium. I may remark that gonorrhœa is a sphinx; some cases yield right away to treatment; many linger in a sullen mood under any treatment, and never get well till a gleet is cured; other cases go on to stricture. The specialist in clap needs to be a seven-sided individual. When I hear a man say he cures clap in a few days, without trouble, I put him down as a grand humbug, or as an incorrigible fibber. At one time I thought I could cure all kinds of clap with boric acid, but I brought up against a granite wall and was disgusted; I found I was overwhelmingly confident. But boric acid does finely in some years; in other years it is nearly a provoking failure. I used to cure clap with a decoction of golden-seal root. I added one-eighth of glycerin to the water the root was boiling in, and boiled four to five hours down to one-fourth the bulk. I use eight ounces of the coarse ground root to one gallon of water. When strained and filtered I have two pints of liquid. This is the best single remedy I know of in clap. From thirty drops to a drachm is put in an ounce of soft water and employed as an injection, always warming before using. I make it a point to use a tight valve rubber syringe, so that I can force enough fluid into the urethra to stretch it out smooth so as to obliterate for the time being the rugæ and bring the fluid into direct contact with the naked mucous membrane. The injection must be retained in the canal two to five minutes, by keeping the penal pipe of the instrument in the meatus, the shoulder closing the aperture securely. Repeat injection three to five times daily and once or twice during the night. Be sure to wash away the gonorrhœal pus as often as can be conveniently done; by removing this, keeping the mucous membrane clean, the case is more readily cured. Do not forget this practical point. I may remark here, the same is true in treating purulent ophthalmia, and will ensure success. Never use a glass syringe. It is a good thing to keep the bowels soluble with Rochelle salt, which also will render the urine alkaline. Be sure to make the patient urinate every time before using the syringe, to clear out the pus before the injection is thrown in.—Joseph Adolphus.

Quinine as an Oxytocic.—Whenever given in the course of a simple lingering labor it awakens or accelerates uterine contractions. It stimulates uterine fibres when once they have begun to contract of their own accord; like ergot, it does not set contractions going, hence it is not an abortifacient. Quinine, however, has one distinct advantage over ergot: The contractions which it sets going retain their normal intermittent character. It acts rapidly—within twenty-five minutes as a rule. Large doses are needed, taken at intervals of ten minutes. Quinine is particularly useful when the membranes are ruptured and it is advisable labor should be ended as soon as possible. It is harmless to mother and child alike, since, should it fail, dilators or forceps may be used, and there is no difficulty from tonic contractions such as are induced by ergot. After the placenta comes away, when quinine has been used, there is a slight tendency to internal hæmorrhage.

Coules, as long ago as 1888, advocated quinine in abortion with retention of fœtal

relics. Schwab has given the drug in three such cases with good results, the relics being quickly expelled, but he cannot feel sure how far the quinine contributed to the good result until further experience. Of its direct value in labor he has no doubt.—*Revue Obstétricale et Gynécologique.*

Chaulmoogra Oil.—This oil has long been known to India and China, and there valued as a remedy for skin and other diseases resulting from impure blood, including secondary syphilis; and compared with the mercurial products it has the advantage of not being injurious. On the Isle of Mauritius it is considered the only reliable remedy for leprosy. Its healing properties are specially noteworthy in consumption—where the patient has not been too much reduced, the oil frequently effects complete cure, and moreover may be used both internally and externally. It is also used for boils, wounds and external eruptions. It may be given in doses of from three to four drops three times daily after meals, preferably in capsule; and the dose may be increased gradually as demanded. Phthisical cases can take it in conjunction with their cod-liver oil, or a little warm milk. It has proved very valuable in acute and chronic rheumatism, cancer, scrofula, psoriasis, syphilis, bronchitis, sprains, stiff limbs, leprosy, etc. During its administration, however, smoking and indulgence in all pungent and sweet things should be avoided.—*Homœopathic News.*

Muscular Rheumatism.—Lumbago may arise from a cold, strain, fatigue or rheumatism. Its pathology is probably coagulation of the semi-fluid contractile muscular substance, and adhesion of muscular fibrils, so that motion gives rise to partial, irregular and painful contractions. Recent cases of muscular rheumatism are almost invariably relieved by massage; the same result may be brought about, though not so rapidly, by rest, warmth, electricity, or salicylate of soda. Five different actions are claimed for massage, namely, mechanical, thermal, electrical, nervous, and chemical, and it is suggested that when a case does not yield, and is not improved after massage, it is one of neuritis, affecting the nerve fibres that supply the impaired muscles. This probability will be strengthened if the pain is uniform, affecting the same muscles on both sides, if it is worse at night, when at rest and warm in bed, and better when up and moving about; in the case of muscular rheumatism it would be aggravated by motion, and relieved by rest and warmth. Massage may thus be used as a means of diagnosis between muscular rheumatism and neuritis.—*American Journal of the Medical Sciences.*

Vinegar as a Hæmostatic.—As a uterine hæmostatic, I have never used anything else for the past four years. I employ it in a fountain syringe, diluted, equal parts, with hot water. I push the nozzle well up into the womb when the hæmorrhage is post-partum.

In abortion when the placenta is loosening and coming away a piece at a time, I use it along with a uterine irrigator. If there is no immediate danger I attempt to clear the uterine cavity by dilating the os and using a curette, but where there is threatened syncope and a general anæmia this procedure might prove fatal, and here I use the injection and place a tight tampon. On my return twenty-four hours later I find my patient quiet, free from pain, with a good pulse, etc., and on removing the tampon the fragments are discovered outside the cervix; there is no hæmorrhage except a small black clot. Cessation of the pains is an indication for removing the tampon. Afterwards I use injections of only hot water.

In post-partum hæmorrhages I do not use a tampon, but repeat the injection if necessary.—ESTEP, in *Medical Council.*

Thyreoids in Obesity.—One woman used the remedy for only three days, at the rate of fifteen grains a day, and during this period lost three kilogrammes in weight; this was all the more remarkable from the fact that she took milk, butter, white bread and eggs freely, although restriction in the matter of these articles before the remedy was employed brought about only a very trifling loss of weight. An increased excretion of nitrogenous matter to the amount of about four hundred and seventy five grains was evident, so that a decided loss of weight could not fail to result. There was, however, no increase of the fluid excretions, and the urine contained neither albumen nor sugar. Another patient took fifteen grains of thyreoids daily for three weeks, without any restriction of diet, and she, too, lost three kilogrammes in weight. When she discontinued the use of the remedy her reduction of weight persisted for a short time, but she soon began to regain flesh. Her subjective condition was not affected, and her urine was free from both albumen and sugar.—GRAWITZ, in *New York Medical Journal.*

Bed-sores. — Bed-sore is a complication liable to occur during prolonged decubitus. The position of the patient should be frequently changed where permissible. Prophylaxis is very important, and if the nurse is competent this painful complication will rarely require treatment. It is advisable to rub the parts upon which the patient rests with alcohol, and here I wish to mention the fact that daily sponging of the entire body with warm water and then with alcohol will add greatly to comfort. Should a suspicious spot of redness present, remove the pressure from the affected parts by using air-cushions or a water-bed. Prevent the folds of linen pressing patient. At every call it is important to look for bed-sores; should they appear despite all care, dry dressings are preferable to moist. Oxide of zinc in powder or ointment is one of the most valuable remedies. Acetate of aluminum has also a very beneficial effect. At times considerable loss of substance is found, giving rise to a very foul odor; in these cases a charcoal poultice acts remarkably well.—ROTCH, in *American Medical Review.*

Dangers of Kola.—Kola has been taken up by people who would never enslave themselves to rum or opium, because it is announced as a stimulant without reaction. That is the sheerest nonsense. There must be reaction from the exhilaration of any stimulant. The first effect of kola is hardly noticeable; the man who takes it simply feels refreshed, but after eight or ten hours the heart's action is increased enormously; then, later, in the habitual kola drinker or eater, there is the lassitude, the nervous weakness and the tremulousness that ensue from overdrinking; the difference is that with kola the reaction comes on more gradually. The wise bicyclist will let kola in all its forms severely alone. It is in the insidiousness of the drug that the danger lies. It does away with the fatigue that a long bicycle ride brings, but before long it comes to be relied upon, when the development of the slavery is easy. The important point for the public to bear in mind is that kola is not harmless, but must be used with the same caution as opium or morphine. —*Omaha Clinic.*

Aconite.—This is among the oldest of the remedies and has firmly established itself. The gradual substitution by this generation of coal-tar products for aconite, though attended by immediately flattering results, has been, upon the whole, a disappointment. The real action of the two is entirely dissimilar, while the apparent action seems identical. It is true they both reduce temperature, but if that is to be the objective point of treatment then cold baths are superior to either. Their dissimilarity lies in this: Aconite begins its work from the periphery, the coal tars from the very centres. Aconite reduces temperature by and through its secondary action on the circulation, slowing and soothing it, first relieving high arterial tension and thus the too rapid tissue metamorphosis incident to high fever and the resulting arterial excitement. The coal tars do not aid elimination, at the same time they depress and lower temperature.—BLESH, in *Oklahoma Medical Journal.*

Administration of Arsenic.—Arsenic may be given by the stomach, subcutaneously, or by the rectum. By the mouth full doses very frequently produce burning in the epigastrium and loss of appetite; nevertheless in many cases of pernicious anæmia and pseudoleukæmia such full doses are necessary. By the hypodermatic method these symptoms are avoided, but it is necessary to avoid local accidents by the most careful antisepsis. It is well to use Fowler's solution diluted with a little cherry-laurel water, but it must not be forgotten that such an injection is very apt to produce a good deal of pain and local irritation. It is better to use a solution of sodium arseniate. One drachm of a one-to-eight mixture of Fowler's solution in water may be injected into the rectum night and morning, and after four days a third daily dose may be added. If the medication is not pushed too forcibly and frequently, it does not produce tenesmus.—VINAY.

The Absorption of Ferratin.—The quantity that can be absorbed depends largely upon the condition of the mucous membrane of the gastro-intestinal tract. Sulphuretted hydrogen, which accompanies putrefactive processes in the intestine, slowly decomposes ferratin, but immediately precipitates ordinary iron compounds, and so reduces the amount capable of being absorbed. The large amount that occurs after administration of saline purgatives may be ascribed in part to the aseptic condition of the bowel, and in part to the fact that the saline purgatives cause a desquamation of the upper layers of the intestinal epithelium, and therefore expose a thinner layer of young cells through which absorption more readily takes place.

With reference to ill-effects: It has been found impossible to poison animals by in-

jecting large doses into the blood. There is no danger in continued administration of the drug.—MARFORI.

Chronic Dyspepsia in Children.—

Powdered nux vomica, 0.01 gramme.
Bicarbonate of soda, 0.20 gramme.
Calcined magnesia, 0.20 gramme.
Pepsin, 0.10 gramme.

M.

When dyspepsia is due to atony or dilatation of stomach in children five to ten years old, one of these may be taken before meals, morning and evening. This should be continued for ten days, then omitted for the same period and repeated. The remedy is contraindicated in severe pain of the stomach with accompanying nervous irritability.—*La Médecine Moderne.*

New Treatment for Leprosy.—I have treated two cases of leprosy by means of hypodermatic injections of corrosive sublimate. This had previously been accidentally given to a case supposed to be one of syphilis, and which after its true nature was revealed proved to have been greatly benefited. In the two cases just mentioned the dose given was one-fifth of a grain injected into the buttocks. As a result I believe mercuric chloride is worthy of further trial, as the improvement was very well marked in both cases.—CROCKER, in *The Lancet* (London).

Relief of After-pains.—In many cases a nice warm meal is better than any medicine, but where the pains are exhaustingly severe, turn to amyl nitrite. This potent drug is a very efficient controller of after-pains, and used cautiously no harm need be apprehended from it. A neat way of using it is to saturate a small piece of tissue-paper with five or six drops, stuff this into a two-drachm vial, and direct the patient to draw the cork and inhale the odor when she feels the pain coming. It acts with magical celerity.—*American Journal of Obstetrics.*

Urea in Cirrhosis.—Urea, in doses of 150 to 220 grains daily, has been found of value in the ascites due to cirrhosis. It is best given in a five-per-cent. solution in distilled water, a teaspoonful every hour. In two cases the ascites was completely removed in fourteen days; in one the quantity of urine passed daily rose from 250 to 4000 cubic centimeters. Its administration in nephrolithiasis is often of material value.—KLEMPERER, in *Fortschritte der Medicin.*

Aqueous Extract of Cannabis Indica.—This does not possess the almost toxic influence of the alcoholic preparation. It does not influence the secretion of the bronchial glands, and hence is at times preferable to opium. In phthisis it calms the attacks of cough, and is a valuable soporific in diseases of infancy. The adult dose is from two to four grammes, while children may be given two centigrammes for each month of their age.—*British Medical Journal.*

Ointment for Mumps.—

℞ Ichthyol, 45 grains.
Iodide of lead, 45 grains.
Chloride of ammonium, 30 grains.
Lard, 1 ounce.

This ointment is to be applied to the swollen parts three times a day. In some instances vaselin may be used in place of the lard, and sometimes belladonna may be added with advantage.—*Clinical Journal.*

Acne Punctata.—

℞ Borax, 10 parts.
Sodium bicarbonate, 10 parts.
Ether, 20 parts.
Rose-water, 300 parts.

To be used after pressing out the contents of the follicles and in conjunction with frictions twice a day with sulphur soap and very hot water.—*New York Medical Journal.*

Dieting in Dyspepsia.—There must never be less than five hours between each meal: No solid food is ever to be taken between meals: All those with weak hearts should have their principal meal in the middle of the day; and should have their meals as dry as possible.—BALFOUR.

Anti-neuralgic Powder.—

℞ Powdered guarana, 0.75 gramme.
Muriate of quinine, 0.20 gramme.
Bicarbonate of sodium, 0.75 gramme.
Salicylate of sodium, 0.75 gramme.

For one dose.

—*Le Scalpel.*

Chronic Ulcer.—As a last resort put the patient on material doses of *Echinacea.* It has induced most satisfactory results in many cases.—*Homœopathic News.*

Chronic Leucorrhœa.—Small doses of some form of arsenic prove the best constitutional remedy.—THOMAS MORE MADDEN.

Medical Progress.

Fracture of the Scapula by Muscular Action Alone.—Fracture of the body of the scapula by muscular action is an accident of such rare occurrence that in the majority of text-books it is entirely ignored, some even saying that this accident is always the result of severe direct violence; others say it is almost always so caused, while still others, as Holmes, say that "it (the scapula) *is thought* to have been fractured in a few instances by muscular action alone." T. Pickering Pick, however, in his "Fractures and Dislocations," mentions in a foot-note that "one instance of fracture of the body of the bone by muscular action is quoted in the *Journal de Chirurgie* of May, 1845," but makes no further reference to it. The following report of an undoubted case of this fracture may therefore be of interest:

H. K——, aged about forty-five years, tall, spare but muscular, was injured on November 21st, 1893, as follows: He was driving a heavily laden team down a somewhat steep incline and walking beside the load, when part of the harness broke, and, to prevent the wagon running upon the horses, he caught hold of one wheel by the spokes with both hands. The impetus, however, was too great, and he was gradually forced over and down upon one knee. As his knee touched the ground, he felt something give way in his left shoulder and lost his hold. On rising to his feet he found the arm powerless and very painful, the pain being referred to the shoulder-joint, which he thought to be dislocated.

On examination there were found to be no visible signs of any bruise or injury, and he absolutely denied having received any blow from the wagon or anything else, or having touched the ground with anything but his knee. The left shoulder presented no deformity, but was held somewhat lower than the right, the arm hanging straight down, limp and powerless, by the side. There was no swelling anywhere, as he was seen within a few minutes of the occurrence of the accident. On manipulation of the scapula it was found that the entire inferior angle was torn away and separated from the rest of the bone by half or three-quarters of an inch. The line of fracture seemed to begin at about the notch where the oblique line begins on the axillary border of the bone and to run across to the vertebral border almost parallel with the spine, the piece thus separated comprising considerably more bone than is covered by the attachments of the teres major and serratus magnus muscles. The fragment was freely movable, but it was only when the arm was pressed to the side, with the elbow held up and slightly to the rear, that it could be pushed up into its place and crepitus produced. The arm was put up in this position in a sling, with a rib roller enclosing the upper arm and binding it to the chest. A pad over the scapula seemed necessary to prevent the fractured edge of the fragment from tipping backwards, and was therefore applied. Firm union was secured in seven weeks, leaving, however, a very marked ridge of callus over the seat of fracture. Motion was perfect, and the arm regained all its former usefulness. In this case, which was undoubtedly caused by muscular action alone, as shown by the absence of all bruises or abrasions and by the evidence of himself and others that he had received no blow or fall whatever, the powerful combined action of the muscles attached to the inferior angle of the bone evidently caused the fracture. And the scapula at this point is so covered with and embedded in muscular tissue that, although the fragments were widely separated, there was yet no deformity visible to the eye alone, and had there existed any other injury to the shoulder, the absence of crepitus and the reference of the pain elsewhere might easily have caused this to pass undiscovered. —C. J. Edgar, in *Montreal Medical Journal.*

Eunuchs in China.—In China the Emperor and certain members of the royal family are alone entitled to keep eunuchs. His Majesty maintains at least 3000, but no prince of the blood or imperial princess has a right to more than thirty. Theoretically, the palace eunuchs are furnished by governors of provinces, each of whom has to supply eight every five years, receiving in return 250 taels per eunuch. It was found, however, that the number thus obtained was totally insufficient, so a recruiting office was established at Pekin for the direct enrollment of candidates. In the production of Chinese eunuchs four chief factors prevail, viz., greed, predilection, poverty, and laziness. Many parents sell their male children to the mutilators, or themselves castrate them in the hope of eventually sharing their earnings.

Young men of from twenty-five to thirty years of age, some of them having wives and families, often accept emasculation, being allured by the prospects of emolument. Poor wretches destitute of means and threatened with starvation agree to become eunuchs in order to gain a living. Finally, a certain

number of lazy, good-for-nothing vagabonds sacrifice their manhood to secure a life of indolence. The operation is performed in a building situated close to one of the palace gates, but the operator, although his office is recognized and is a hereditary one, having been for many years in the same family, receives no regular wages, being entitled to a fee of six taels for each individual operated on. In the case of destitute candidates he exacts a lien on their prospective earnings. Doctor Matignon's description of the operation is as follows:

The subject, with his abdomen and thighs tightly bandaged, is placed supine on a low bed, one assistant tightly grasping him around the waist, while two more keep his legs widely separated The operator, as a rule, uses a curved implement resembling a pruning knife, but occasionally he substitutes for it a long pair of scissors. With his left hand he seizes the parts, squeezing and twisting them to diminish the supply of blood; but before cutting he inquires for the last time whether or not the patient is a consenting party. Adults, of course, answer for themselves, no anæsthetic being used, but in the case of children the parents' word is accepted. The reply being in the affirmative, a single rapid sweep of the hand serves to remove both penis and scrotum, the blade of the instrument passing as close as possible to the pubis. A small piece of wood or of pewter, shaped like a nail, is then inserted into the urethra; the wound is washed two or three times with pepper and water and, several sheets of paper having been applied to the raw surface, the parts are carefully and tightly bandaged. The subsequent treatment is remarkable. Immediately after the bandaging the unfortunate patient is seized by the assistants and made to walk up and down the room at a rapid rate, not being permitted to lie down for three hours. For three days he is not allowed to drink anything, and not only does he suffer the pangs of thirst, but also has to endure the agonies of retention, owing to the plug in the urethra. On the fourth day the bandages are removed and the wretched creature is allowed to pass urine if he can. If the urine flows he is looked upon as cured, but should the overstrained bladder refuse to act he is left to die, the virtues of catheterization being apparently unknown to the Chinese. The amputation leaves a large triangular wound, with the apex downward, which takes on an average about a hundred days to granulate.

Notwithstanding the primitive mode of procedure, the operation is usually successful, and fatal cases do not amount to more than three or four per cent. The most frequent complication is the incontinence of urine, but if this unpleasant symptom continues beyond a reasonable period the patient is condemned to flagellation, a mode of treatment which is said to yield the most excellent results.—*The Lancet* (London).

Modern Views of Pneumonia.—There was hardly a prominent medical periodical, at the outset of this year, that did not contain some interesting authoritative allusion or paper or some readable discussion on this very serious morbid condition. We are disposed to conclude from this that there is not yet perfect unanimity in the minds of practitioners either as to its pathology or treatment. At a recent meeting of the Philadelphia County Medical Society, Thomas J. Mays read a valuable paper advocating, from collective investigation of a series of cases, the local application of cold in acute pneumonia, and urging the view that the morbid process is in a great measure dependent on serious disturbance of the nervous system, in which the respiratory nerves and centre participate very largely, and hence the increased frequency of breathing in this disease may be due partly to central and partly to reflex influences. Moreover, he stated, in close anatomic contact with the respiratory, the polypneic, and the heat-centres, is the convulsive centre, and in this close companionship we have, perhaps, an explanation why almost all inflammatory diseases that implicate the base of the brain are attended with a frequent respiratory rate, high fever from the onset, with little fluctuation, together with convulsions occurring with greater or less frequency. The oblongata contains another centre, viz., the cardiac centre, which is invariably involved in pneumonia, and plays a very prominent rôle throughout the course of this disease. The therapeutic indications are brought out very prominently: Abatement of the local process in the lungs: Reduction of fever, and: Alleviation of cerebral and general nervous irritation. He believed that cold, applied externally, would meet these demands more satisfactorily than any other measure. Not only will it allay the morbid process in the lungs, but it possesses a direct ameliorating influence on those nerve centres which play a responsible part in the pathological history of acute pneumonia.

Different views are held by other authorities, who gave expression to them in the columns of several of our contemporaries. Osler, for example, holds toxæmia is the most dangerous element in pneumonia, and that the interference with respiration and the circulation is of far less importance. He believes that it is to this that the excessive mortality is due, and this belief contains for him little that is encouraging, for he confesses that we know of no means by which we may combat effectively the poison of the disease.

Baruch holds the same views as Osler concerning the part played by toxæmia in the mortality of the disease, but he has much

greater confidence in the result of his therapeutic measures, although admitting that the outlook in each case is very uncertain. He relies chiefly upon the effect of wet compresses, applied at a temperature of 60° F., and renewed every hour or half-hour, according to circumstances, although he also gives Leaming's "sedative dose," ten to twenty grains of calomel, at the beginning, and hypodermatic injections of strychnine to spur up the flagging heart—two remedies which have been found efficacious in certain cases, even when not combined with hydrotherapy. These methods, in his view, offer at the present time the most favorable, yet not perfect, results in the management of patients suffering from pneumonia.

A. H. Smith, in another paper, refers to the familiar method of treatment of croupous pneumonia by inhalation, but doubt as to its practicability exists.—*College and Clinical Record.*

Medical Superstition.—In lieu of a large number of new remedies which have made their appearance during the last year, the following therapeutic hints taken from the *New York Press* have at least the merit of being very old and well known in former times, and in many cases were probably quite as efficacious as some of the more modern "cures." They are popular remedies in common use among the German peasantry:

For stomach trouble, beer poured over a red-hot horseshoe is helpful.

For hydrophobia, inscribe upon a loaf of bread, on the upper crust, the following words, and give it to man or beast, as the case may require: "Gerum heirum Lada frium hide thyself."

To cure warts, rub the wart with a potato and feed the potato to a pig.

If a child is puny and of low vitality, bore a hole in a young tree, at exactly the height of the child. Drive a plug into this hole, along with some hairs of the child's head. The belief is that as the tree continues to grow, so will the child.

For toothache, trim your finger-nails on Friday, eat bread a mouse has nibbled, or bury a tooth in the hole of a mouse, or carry in the pocket a tooth from a soldier killed in battle, or from a murdered man. Kiss a mule. Rub the gums with the body of ant, bee or fly, or prick them with a sharp twig from a sweet apple tree.

For ranula of the tongue, spit on a frog.

To cure a goitre, rub in oil from a lamp, especially from a lamp that has burned by a death-bed.

For gout, wear a copper ring, made from a coffin nail, or carry a snake skin, potatoes, chestnuts, or the tooth of a mole, or a dried toad.

For alcoholism, drown an eel in brandy and make the drunkard drink it.

For impotence, drink a glass of mother's milk.

For boils, wear a gold piece or half of a hard-boiled egg over the lesion.

To cure a felon, or "run-around," hold the finger in a cat's ear for half an hour.

Cancer may be cured by applying fresh warm hen's or pigeon's or calf's flesh.

Freckles may be removed by washing in water contained in a hollow stump, three successive mornings before sunrise.

For malaria, chew the first violets of the season, eat apples at Easter time, keep a three-colored cat in the house. Pass the fever over to some one else, if possible to an animal or plant, or bury it in the ground.

For jaundice, drink water in which a gold piece has been kept for twenty-four hours, and shave the nose with a razor until the blood comes.

Milk from a sow, blood from a weasel, a pregnant ass, seven drops of blood from the tail of a cat, or blood from a recently executed criminal, are all remedies for epilepsy. —*Western Medical Journal.*

Hydrocyanic Acid an Antidote to Chloroform.—Mr. Frederick Hobday, of London, having observed that the respiratory centre was usually paralyzed first when death occurred during chloroform anæsthesia, thought that hydrocyanic acid might prove of service as an antidote where the breathing was becoming shallow and weak, on account of the rapid and powerful temporary exciting effect this drug exerts on the respiratory centre. He administered hydrocyanic acid successfully in thirty-one cases of chloroform poisoning in animals, mostly dogs, though some were cats, and the list includes also one calf, one sheep and one horse; the cases were those in which during anæsthesia the breathing either stopped suddenly or became gradually slower. The hydrocyanic acid was administered in some cases hypodermatically, in others was placed on the tongue. The good result was generally manifest in a very short time—half a minute to two or three minutes—the respirations being resumed and becoming strong and regular. In some of the cases, owing to the dose of hydrocyanic acid being rather large, the breathing became labored, when the administration of chloroform was resumed, so

that a balance could be kept up between the toxic effects of the two drugs.

These observations lead fairly to the conclusion that hydrocyanic acid is of value as an antidote to chloroform, its beneficial effects being due to its property (when given in certain doses) of rapidly and violently stimulating and exciting temporarily the respiratory and cardiac centres, and so counteracting the depressant and paralyzing effects. The drug should be placed on the back of the tongue or injected hypodermatically. In all his cases Scheele's acid was used, and he prefers it to the B. P. acid on account of its greater strength and consequent rapidity of action. For animals he considers one minim of Scheele's acid for every seven or eight pounds of body weight to be a fair average amount. It is well not to be too anxious to administer a second dose till perfectly sure the first has been futile.—*Medical Chronicle.*

THE BEST TIME FOR SLEEPING.—Does the time at which the sleep is obtained, provided it is sufficient in amount, make any change in the result? In brief, is there any truth in the old adage that an hour before midnight is worth two hours after midnight? I had an opportunity to make some study of this subject in the naval service during the late war. On shipboard officers and men alike stand four-hour watches day and night, and are obliged to get their sleep irregularly; to so arrange it that the same man shall not be obliged to take early or late watches continuously, the "dog watch" of two hours is interpolated, thus adding to the irregularity. In watching the results for over two years I could never discover that watch officers and men were not as fully refreshed by their sleep as medical and pay officers, who stand no watch, and have hours as regular as those of any householder.—COLBY, in *New England Medical Gazette.*

EXTRAORDINARILY PROLIFIC.—A linen-weaver's wife, forty years old, married twenty years, bore in eleven pregnancies thirty-two children: At the first labor, *quadruplets;* at the second, *triplets;* the third, *quadruplets;* the fourth, *twins;* the fifth, *triplets;* the sixth, *twins* (stillborn); the seventh, *triplets;* the eighth, *triplets;* the ninth, *twins;* the tenth, *triplets;* the eleventh, *triplets* (two stillborn). Twenty-six of the infants were males, and six females. The father was one of twins, and the mother was one of quadruplets of a mother who had borne thirty-eight children. The woman had been epileptic from her fifteenth year, the attacks recurring unchanged during successive pregnancies. The woman is now in her twelfth pregnancy.—VALENTA, in *Wiener Medicinische Wochenschrift.*

THE CAUSE OF WARTS.—Having noticed the formation of a wart from the accidental introduction of a small spicule of glass in my own person, I believe that warts are due to mechanical irritation applied to the papillæ of the corium by the entrance of a foreign body, which leads to swelling of the tissues, with a localized and increased formation of epidermis. As these excrescences are witnessed upon the exposed portions of the body, I am convinced that small foreign substances are admitted in this way and produce warts, when no bacteria are present; but that when pyogenic bacteria are attached to them they excite suppuration.—SCHAAL, in *Archiv für Dermatologie und Syphilis.*

CONGENITAL ANONYCHIA.—Jacob of Berlin describes three children in one family, healthy, well developed, and of robust parentage, who have no traces of nails on either fingers or toes, except on one finger in one girl.—*Deutsche Medicinische Wochenschrift.*

DETECTION OF PUS IN URINE.—When intending to examine under the microscope for pus cells, they will always be rendered more visible by first adding to the specimen a little tincture of guaiac, which colors the cells blue.

OSTEOMYELITIS.—The chief diagnostic point in osteomyelitis is the acutely sensitive spot near the junction of the epiphyses.—FUNKHAUSER.

LOCOMOTOR ATAXIA.—An important symptom is a band of tactile anæsthesia more or less complete around the chest at the level of the nipple.

BRIGHT'S DISEASE.—Ammoniacal breath in the subjects of this malady is usually a forewarning of uræmic attacks.—WARREN.

PNEUMONIA.—The appearance of labial herpes is a favorable sign in congestion of the lungs.—*Denver Medical Times.*

The Medical Age.

Vol. XV. DETROIT, MARCH 25th, 1897. No. 6.

Original Articles.

EPILEPSY.

BY FRANK C. HOYT, M.D.

In this article, as I desire to discuss the epileptic psychoses only, all reference to pathology is omitted.

It is a generally recognized fact that epilepsy is prone to cause mental changes, and some, notably medico-legal writers, regard this as being synonymous with mental aberration. On the other hand, as has been pointed out by Spitzka, unless the epileptic is positively demented many will treat him as sane and responsible for his actions. When such extreme and misleading views are held regarding idiopathic epilepsy, it is evident that insufficient attention has been paid to the various psychological phenomena obtaining to the malady.

Long association with epileptics, a careful study of the subject, together with close observation of many cases, will convince one that epilepsy does cause mental degradation. It is possible that a certain number of cases may be found in which the disease has existed for years without evidence of mental deterioration, but such are the exception. Epilepsy causes mental changes in proportion to the frequency and severity of the seizures and the younger the age at which it is developed. Pepper calls attention to the fact that very rarely, if ever, is there any distinct recovery of mental power, so that symptoms once established are usually permanent. Accepting this view of the question, it seems proper to classify and study the psychoses of epilepsy in six distinct classes. This arrangement does not represent the forms of insanity which may complicate epilepsy, for this disease may be accompanied by any one of the primary insanities:

Mental and moral degradation:
The physical equivalent of epilepsy:
Pre-epileptic insanity:
Post-epileptic insanity:
Intervallary epileptic insanity:
Epileptic dementia.

Studying these psychoses separately, it is found that mental and moral degradation is present to a greater or less extent in all cases of long duration: the higher moral attributes are first affected and the animal instincts given full sway, because of the loosening of the moral checks. The patient loses his normal affection for members of his family, becomes vulgar and obscene, loses all regard for truth, is selfish, egotistical, and irascible; with all of this may remain a strong undercurrent of religious feeling; he is frequently very attentive to what he deems are his religious duties. Finally he becomes more animal in nature; is gluttonous, indolent, and frequently indulges in vicious practices. Children thus afflicted soon become mischievous and wayward, and often apt students in crime. Adults in this mental condition are more or less dangerous, owing to irritability and marked moral degradation.

The second class deals with that condition in which, instead of a convulsion, there is a mental storm more or less intense, which is known as the physical equivalent of epilepsy. This is often characterized by automatic mental and motor phenomena which occur while the patient is in a state of partial or complete unconsciousness. At times the patient becomes almost maniacal, and while in this condition may do any act of violence. Many crimes have been committed by patients in this condition, and interesting medico-legal points have been raised in connection therewith.

Pre-epileptic or pre-convulsive insanity precedes the outbreak of convulsions, and the mental disturbance increases progressively until the paroxysm explodes and ends

in a seizure (Spitzka). The patient in this state is subject to such profound mental excitement that he is capable of almost any violent action, all memory of which will be abolished before he emerges from the stupor and somnolence which usually follow a seizure.

Post-epileptic insanity, or post-convulsive furor as it has been frequently called, is a condition of maniacal fury which occurs after a seizure, and seems to take the place entirely of the usual stupor; it very closely resembles acute delirious mania, but is distinguished by the fact the fundamental expansive emotional disturbance is absent, and the violence of a treacherous, malicious and irascible character never observed in delirious mania.

In intervallary epileptic insanity, which instead of preceding or following the seizures occurs in the intervals between two convulsive attacks, the mental disturbance is not unlike that of pre-convulsive insanity, but is generally not so intense and maniacal in character as post-convulsive furor.

The condition known as epileptic dementia is the more complete mental deterioration due to prolonged existence of the disease and to the indelible impression made upon the brain by frequent seizures. The mental condition here varies from an ordinary degree of deterioration to a state bordering on complete dementia. Gowers does not think the mental degradation due altogether to the epilepsy, but "to the expression of a cerebral imperfection, of which the epilepsy is another manifestation."

From this mere glance at the psychoses of epilepsy it will be observed that notwithstanding many men of brilliant minds have been epileptics, and that the disease does not always cause mental deterioration, yet the chances for an epileptic to escape mental degeneration are very poor indeed. If he escapes the primary degradation, he may have an attack of larvated epilepsy; or avoiding this he may become the victim of pre- or post-convulsive insanity; escaping these, it is only to succumb finally to intervallary insanity or to epileptic dementia.

If he is fortunate enough to have no mental changes at all, he has yet to suffer almost complete social ostracism, inasmuch as he becomes an object of dread to his friends and associates, going about from day to day overshadowed with the fear that he will at any moment be writhing in a convulsion at once pathetic and horrible; he is prevented from acquiring an education or trade, and is finally left to shift as best he can, an alien and an outcast. Taking all these into consideration, together with the fact that sooner or later he will fall a victim to some sort of mental disorder, and may commit a crime which will plunge all concerned into sorrow deep and ineffaceable, the impropriety of permitting the epileptic to roam at will is evident. And further, when the statistics of insanity and epilepsy are examined it is found there is another reason why the members of this unfortunate class of people should be under care. It is the opinion of leading neurologists that a very large per cent. of all cases of insanity are caused by a hereditary predisposition or to some disease of the nervous system. Regis says that "without contradiction, heredity is the most powerful and important of all the causes of insanity."

Epilepsy in the parent is almost certain to reappear in the child. Gowers states that "there is a family history of epilepsy in thirty-seven per cent. of the cases," while other writers place the estimate much higher. The intimate relation existing between crime, hereditary insanity, and epilepsy is well recognized, so much so, in fact, that many writers regard crime as but an "outlet" for the discharge of abnormal mental energy.

No law of nature is more satisfactorily proven than that of heredity, and it is a fact of atavism that the hereditary taint often fails to be observed in the child, and sometimes even one or two generations escape before the abnormality exhibits itself. Epileptics should, for this important reason, be so restrained by law that they may be prevented from propagating the disease by marriage.

These problems in sociology, bearing on the prevention of disease and crime by marriage, are of vital importance to the welfare of the nation. The prevention of insanity and epilepsy should receive the attention of social reformers as being of equal importance, at least, with the care and treatment of those already afflicted. The people will sooner or later tire of building and maintaining numer-

ous institutions—which are being increased year by year, and are filled to repletion as soon as finished — and will demand some measures of prevention.

So far as epilepsy is concerned, the solution of the problem is found in the sequestration of the epileptic in an institution under control of the State. This is not to be accomplished by confining him in a hospital for the insane, as is now done, but by providing for him an institution peculiarly adapted to the needs of this class of unfortunates. This institution should be on the colony plan, modeled after the epileptic colonies of Bielefeld, Germany; Gallipolis, Ohio; the Craig Colony, New York; and many others. It should be centrally located on the main line of some great railway, and comprise not less than one or two thousand acres of good farming land; should not lie near a city or town, but be a distinct settlement, which will comprise within its borders a village with all the conveniences of a city and none of its vicious and disturbing elements. This village should be located on a portion of the colony farm that will offer the most advantages in the way of sanitation, water supply, sewage disposal, economy of construction, and convenience in operating. There must be complete and ample water-works, system of sewerage, electric light plant, telephone system, and a central steam-heating plant for such of the buildings as can be heated in this manner; for purposes of entertainment a church, theater, dancing pavilion, parks, etc., properly located. Suitable buildings for residences and offices of the administration should be provided. Extensive shops of all descriptions, thoroughly equipped with such appliances and machinery as will give employment to those members of the community who are competent to engage in these industries, are desirable.

For the patients themselves should be erected a sufficient number of plain, substantial and comfortable cottages, arranged about the village in a manner at once conducive to economy and comfort. Each cottage should provide for not more than twenty patients, and include not only proper toilet facilities, etc., but rooms for attendants. For those members of the community who become ill a fully equipped hospital is essential, and for those who are maniacal at times a properly constructed building. For the younger members of the community grammar and manual training schools should be provided, so that the disease will in this community be no bar to the acquirement of education or vocation.

For those patients whose minds are impaired to such an extent that employment cannot be given in skilled lines of labor, there would remain the farm, garden, dairy, hennery, piggery, etc. The rule should be to employ all who are physically able at least a part of each day, and to as nearly as possible render the colony self-sustaining. Under proper management, nearly all the articles used by the community could be here manufactured, and one not experienced in such institutions will be surprised at the variety of work turned out.

Such an institution as thus hastily and imperfectly described will cost less to construct and equip, per capita, than any other State institution, and the expense of maintenance be incomparably less. Laying these conditions aside, it will accomplish the following objects:

Will place the epileptic under the most favorable conditions for improvement in health, prevention of mental deterioration, and for a comparatively happy life:

Will protect the public from the danger which always menaces those who are in daily contact with the epileptic:

Will effectually prevent the propagation of epilepsy and insanity, at least so far as the members of the community are concerned:

It will be an economical measure, for the epileptics now in the insane hospitals and institutions for the feeble-minded will be transferred to the colony, making room in these institutions for those who properly belong there.

Clarinda, Iowa.

SENILITY, SENILE DEMENTIA, PATHOLOGY, AND TESTAMENTARY CAPACITY.

BY G. H. HILL, M D.

Only a small minority of the human family live to enjoy the reverie of extreme old age. The candle of physical and mental life seldom burns until the vital forces are completely

consumed, but is often blown out by accident or extinguished by some acute disease. The quality we call longevity does not have entire control of the vital flame, however; it is undoubtedly a fact that modern civilization tends to lengthen life. Not only does the youth of to-day see more and know more than the lad of former times; not only does the man pack more experience and more achievement into a year than ever before; but it is also true that the average length of life is being increased. The laws of health are now more thoroughly understood and observed than ever before, and in our cities and in our homes we are pecuniarily able to use sanitary measures which promote health. By means of preventive medicine we protect the lives of children, and only know of the wholesale slaughter of pestilence as a thing of the past, or as working devastation in some far-away land.

And yet we cannot confidently state that by hygienic and comfortable ways of living the number of centenarians is being increased. There are other contingencies to be borne in mind. Nowadays we are not likely to be cut off from the earth by epidemic diseases or by starvation, but we may wear out before attaining the age of eighty or even seventy years. On account of labor-saving machinery we earn a living with brains rather than with muscles. We may be compared to high-speed engines, which are short-lived unless they are firmly anchored to the ground, kept skilfully adjusted, carefully lubricated, and permitted to cool off occasionally.

By senility is meant the uniform series of phenomena which characterize old age. While these changes are common to all men, the one which is noticed first or which is the most prominent will depend to a considerable extent upon the general health, the temperament, or upon the previous occupation of the individual. As the meridian of life is passed a general diminution of both physical and mental activity insinuates itself. Deliberation becomes a virtue. As the eyesight begins to fail, the curiosity of childhood subsides, the acquisitive faculty is replaced by a feeling of satisfaction with attainments already made. The old man is no longer a close observer. Novelties have lost their charm; romance is foolishness; the well-beaten path is good enough for the venerable sire.

Since old people lose interest in current events and are not anxious to make new acquaintances, they do not give close attention to what transpires about them, consequently impressions made on the mind are seldom lasting, and the memory becomes treacherous. On the contrary, knowledge acquired during the most active period of life has been indelibly impressed, and in old age is reproduced with untiring satisfaction. If an old man undertakes a new kind of business of any considerable importance, he is likely to fail in it. The aphorism, "You cannot teach an old dog new tricks," is so often employed and so well understood that it is sure to be transmitted to posterity. When we have the opportunity to watch the waning of the vital forces on account of extreme old age, the slow but increasing loss of all the characteristics of the individual—yea, even of human nature itself—the picture is something like this: The man continues at his accustomed work or goes through the motions of transacting business as before, but he "goes slow," soon tires, so must leave the bulk of the work for others to do. In financial matters he consults with and is influenced by his favorite boy or by his wife, who may be much younger than himself. Later he is irregular about going into the field or to the shop—busies himself with chores about the house or in entertaining his grandchildren. By and by he sits all day in an easy-chair on the porch or at the fireside; he is given a bedroom on the ground floor; his food is cut for him; everything needed is placed in his hands. Still later the decrepitude has advanced to such a degree that he can no longer feed himself or even masticate, so is sustained with liquid nourishment. He cannot even make the common wants of his animal nature known, but must be watched and waited upon like an infant; he does not recognize his most intimate relatives; cannot tell his own name,—he has passed his second childhood into his second infancy. He has no knowledge of what transpires about him, no appreciation of the passage of time, is not disturbed by confusion or noise; his special senses are useless—in fact, he is in a condition of permanent

anæsthesia. He does not even vegetate completely, because there is no growth. The heart and the lungs perform their functions in a slow and more or less irregular manner. Whenever, for want of vitality, the force-pump of the circulatory system stops for the first time to take a good long rest, it is discovered that the old man is dead.

In order to distinguish the symptoms of senile dementia from the characteristics of senility we must define these kindred conditions. The latter is a normal condition, but senile dementia is not, and is caused by disease of the brain. When this disease invades the brain without apparent cause, progresses slowly, and is subacute in character, the mental symptoms caused by it are hard to differentiate from the vagaries and imperfections to be expected in very old people. If these mental changes come at the age of fifty-five or sixty it is presumed that the man is passing into his dotage earlier than usual. In true senile dementia there is always bodily decrepitude, whereas in the mental impairment due to the natural decay of brain tissue, resulting from old age, there may be a very good bodily condition.

The age at which senile dementia begins varies; as a rule, the mental derangement does not begin before the age of sixty, and is oftenest found between sixty-five and eighty.

In classifying the insane or in describing the different forms of insanity, we say that there are three general types: Those manifesting excitement, loquacity or an exalted frame of mind are cases of *mania:* Those who are depressed in spirits, hopeless and perhaps suicidal,—these are cases of *melancholia:* And where the most prominent characteristics are those of mental impairment, weakness of the faculties, we call it *dementia.* If the first symptoms of insanity are dulness and loss of mental power, such a case is said to be one of primary dementia; if the manifestations at the outset were those of mania or melancholia, and the patient, instead of making a recovery, gradually relinquishes these symptoms and acquires those which indicate a loss of the mind, then we denominate it a case of secondary dementia. Senile dementia is usually of the primary sort, but there are cases where the well marked symptoms are secondary, since excitement or depression comes first,—the self-evident fact must be kept in view that this kind of dementia only occurs in old people, and not only so, but the mental derangement must not begin before the person has become old. In senile dementia, as in normal senility, the first characteristic noticed is usually loss of memory. It has been observed that a business man cannot afford to indulge in falsehood unless he has a good memory, but the old man is a liar because he forgets.

Personal property which the demented man mislays and cannot find, he declares has been stolen by the children or other members of the family; therefore, he attempts to conceal things, which practice only aggravates his trouble. He may search long and often among old papers or in strange places, but can hardly tell what he hopes to find. Like a little boy he may stuff all his pockets and become highly indignant when useless things are taken away from him.

Again the demented old man may not be able to appreciate distance or the lapse of time. His mental powers may fail to such an extent that he does not recognize relatives or neighbors as such; he may be suspicious of food, be inclined to sleep in the daytime and prowl about the house or premises in the night; may start off on foot and go in the wrong direction to visit his former home, which may be a thousand miles away. Under such conditions, when these persons become very unreasonable and unmanageable, in danger of getting lost or frozen or killed, they are placed in the care of hospitals for the insane.

Some of the causes which conspire to make an old man insane are predisposition by inheritance, poor health, *la grippe*, injury to the head, sunstroke, typhoid fever, the early or excessive use of stimulants, syphilis, domestic trouble, loss of property or pecuniary embarrassment, or any prolonged mental strain.

The nutrition, growth, strength and stability of brain structure depend greatly on the manner in which the functions of the organ are discharged. It is best developed by a sufficient amount of natural exercise,—disuse or excessive use of the mind injures the brain.

This is an age of brain-workers, for competition in business taxes the brain; hence, as old age creeps on, if the vital organs are

equally as strong, the brain is likely to give way first. Like William Windom of Minnesota, who dropped dead of apoplexy while, as secretary of the treasury, he was addressing the gold kings of New York City, many men nowadays die of brain disease while still in their prime.

The centre of the nervous system, perhaps more than any other organ, is impaired by the chronic inflammatory conditions due to alcoholism.

Diseases of the brain in old age, like those in other parts of the body, are apt to be marked by degeneration,—cancer, chronic endocarditis and a general atheromatous condition of the arteries are such. These senile changes are not only destructive in character, but progressive. The post-mortem appearances point to general atrophy and degeneration of all the tissues of the brain. The dura mater is thickened and occasionally hæmatoma may be found. The pia mater may also be thickened and opaque, having its delicate meshes bathed in an excess of cerebro-spinal fluid. The vessels at the base of the brain, especially the basilar, the carotids and the arteries in the fissure of Sylvius, are atheromatous and degenerated. Microscopically, the walls of the capillaries are often found to be greatly thickened, and there may be miliary aneurysms with fatty degenerated tissue about them. The most important and characteristic changes are in the nerve cells of the cortex, especially in the frontal and central convolutions. "In many places no normal-looking cells can be found; often there is an accumulation of brown pigment granules or of small, round, fatty particles. Many of the cells seem to be altered in shape, and the nuclei pale and indistinct, or broken down into shapeless masses. The nerve-fibres of the cortex, as well as the processes of the nerve-cells, take part in the general disintegration." Some of the latest pathologists say that there is an infiltration of the cortex with leucocytes or lymphoid cells, and these leucocytes enter the pericellular spaces and swarm around the blood-vessels. A similar infiltration has been noticed in experimental work in the cortex of the brain of a dog that has been subjected to a period of starvation. The presence of leucocytes in the senile brain may be an indication of impoverished nutrition. Lack of nutrition is followed by diminution in the function of the brain, hence senility and senile dementia.

Jarman, an English author, in his three-volume treatise on "Wills," states that "it is highly probable that the question of disability of a testator to make a valid will has arisen no more frequently, nor has been more thoroughly and learnedly considered, than in those arising from the failure of the mental powers from advancing years."

Senile dementia, or the imbecility of mind from old age, is a most difficult subject with which to cope. No line of separation exists between the years when a man's mental powers are held to be sound and those in which his faculties are certainly shattered. No point is fixed beyond which to pass is to become incompetent on account of age. One man may be fairly taken to be in his second childhood at an age when another is in the prime of life as to mental vigor. Hence it becomes essential that each testator's situation, or circumstances, habits, life, relations to those who surround him, must be thoroughly investigated before either court or jury can have any adequate conception as to his ability to make a valid testament, and that whether he be fifty or eighty, or ever older. It is impossible to lay down rules in one case which can be binding in others. As in other cases involving capacity, the questions to be determined are whether the testator has sufficient memory to recall his property and those upon whom his bounty should confer it, and sufficient mind to construct a will with a due understanding of the business then in hand, and in the manner in which he desires his possessions to be distributed.

It is not to be doubted that after memory is impaired the mind may still be sound. Most people probably, as age advances, suffer from loss of memory long before they have reached that degree of senility which would incapacitate them from making a valid will. The law looks only to the competency of the understanding. The power of disposing of property is an inestimable privilege of the old. Property in some instances is acquired by hard work, by self-denial and by good management, and the right to bestow

these accumulations on others frequently commands attention and respect when other motives have ceased to influence. How often without it would the hoary head be neglected, deserted, and despised!

Old men who have been successful in accumulating property are thoroughly versed in the methods used by them in doing business, consequently such a man may continue even to a ripe old age to take care of and manage well his possessions from the force of habit; but this rule does not hold good if, late in life, he changes his vocation to one with which he is not familiar. It is quite natural for a person who has accumulated property by close economy, practiced throughout life, not to devise it even to a favorite child if convinced that these savings will soon be squandered; and yet it is not uncommon for an aged parent to be unduly influenced by his favorite child or convinced by his most intimate business acquaintance that almost any course stated is the best one to take.

A man may be capable of transacting ordinary business and yet his will be declared invalid on account of undue influence. This undue influence practiced upon a weak-minded person may amount to imposition or fraud; it is a serious consideration in any case, but if the testator has been adjudged insane, or is under guardianship, or is a patient in a hospital, then this objection to a will proves most serious.

In determining mental capacity to make a will each case must be considered separately. An old person who has completely lost his memory cannot make a will. The same is true if there is other evidence that the reason is completely and permanently dethroned.

Eccentricities which can be traced back to early life are not so likely to invalidate a will as insane delusions.

In cases of monomania where the mental derangement is circumscribed and the faculties are not much impaired, insane persons may retain capacity to make wills, if the delusion or mental bias does not pertain to or in any way concern the subjects treated in the testament. What seems still more remarkable is the fact that a person who is very insane, and perhaps has been deranged for a long term of years, may make a valid will on account of lucid intervals. It is not a perfect mind, but one that comprehends the testamentary act, that is required. In proportion as the infirmities of a testator expose him to deception, should all persons assisting in the making of a will be careful to observe that he fully understands what he is doing and be sure that no imposition has been practiced.

The principal reasons for setting aside wills are: Because they are unreasonable: Because the terms are unsatisfactory to a part or all of the persons legally interested in the will: If drawn in an irregular or an unintelligible manner, and: Wills may be set aside on account of illegal conditions which may make the ownership of property doubtful, thus causing the conveyance of real estate to be unsatisfactory. For these and other reasons already enumerated, it is advisable to make one's will before becoming sick or infirm with age; it should be drawn by a lawyer to whom it is dictated directly by the testator. The witnesses who sign the will should be well acquainted with the maker and know his true condition at the time the instrument is drawn; that he understands what he is doing and is able to give good and sufficient reasons for devising as he has. Those who are called upon to attest the will should see that the maker harbors no unreasonable prejudice or delusion against any person who should be a beneficiary. Furthermore, they should see that the maker has not given excessively to one and entirely forgotten another who should be remembered.

An aged or partially demented person can usually make a good and sufficient will if he is carefully assisted by a disinterested person who is knowing to all the conditions in the case.

Independence, Iowa.

DO WE YET KNOW OURSELVES?

BY E. W. WATSON, M.D.

Possibly the ancient sage who told us so solemnly when we were younger — in the pages of the Greek reader—to know ourselves had some secret insight into the constitution of man which the heedless world at large has never stumbled over in its many accidental discoveries, so that *Man* to the student of man presents still an ever interesting and

thus far insoluble problem. The old ways have lead us near, perhaps, but never quite to the truth, and it might be worth while, on the basis of the things we have discovered, to let our thoughts run for a while untrammeled by rules of observation and deduction and scientific psychology with its technical terminology, and wander at their will in a field which is still virgin—though for ages we have tried to cultivate it.

Is there a something in man unaccounted for and unreckoned with, up to the present time? Let us see.

There is the old question of conscience, which the philosophers and metaphysicians have explained in their varied ways, each to his own satisfaction; we will let them go for a while.

There is another. One wants to be awake at a certain time in the night. He can either stay awake—which is wearying—or he may say—to himself he thinks—"I want to awake at 3 A.M.," and at 3 A.M., if he really says it decidedly, really wants it urgently, and definitely gives the command, he awakes, generally not knowing why, having forgotten all about the train that starts early—the medicine he must give—the urgent visit he must make. The very mode of waking, too, is strange; the roused-up sleeper comments on it, and is mentally disturbed. It differs from the many times that he has waked before; it is sudden, but there is no noise nor dreamy interweaving of noise with curious scenes of dreamland. He is called, but no lingering voice remains in his ear, and as the now wide-awake and perplexed individual lies pondering, gradually or suddenly the reason of it all and its necessity comes to him; he looks at his watch and it is three o'clock! We call it waking ourselves, but no power in the conscious mind could do it, for wide-awake, by day or night, the most cultivated intellect is unable to tell the time without artificial or outside aid; yet when sound asleep it seems no chronometer excels him.

Now, just here we would pause and say: "The power, whatever it may be, within us or without, intellectual or instructive, that can do this much for us, can if we study its capabilities do infinitely more, and we have never directly sought its aid and used it as we might."

Or, again, one misses a well-known fact or name and gives up in despair, but afterwards when engrossed in other lines of thought, when talking about alien things and remembering our perplexity no more, suddenly the missing fact, the evasive name, is thrust as it were before him, breaking rudely in upon his thoughts, blazoning in vivid characters the strange incongruous name of Jones or Brown, or the date of 1862, before the bewildered mind, and after an appreciable interval of surprise he recalls what it is, and how a minute or an hour ago he wished for it; and sometimes he can never recall its need,—the associations are gone, and the name haunts for hours in ghostly will, and then fades, ghostlike, silently away, having accomplished nothing, like most apparitions.

Or a poet has a thought come to him, a thought that has long been familiar, or a thought that seems new, and he sits down to write, and he writes on at a white heat, and he feels a thrill of joyous surprise—the subject opens up so, it is so complete—and then he throws down the pen, and were he to sit and drudge by the hour he could not add another verse as good as those before him. Where was it with its excellent versification and intricate rhythm an hour ago, for to its writer it is as fresh and new as it will be to the delighted reader by and bye, and if by chance a line seems inharmonious and below its standard, if a rhyme be faulty, as a rule a little patience will unravel from that line itself, that we condemn, the comparative perfection we miss.

Such verses, so written, have ever a sustained thought and sentiment and fire that separate them immeasurably from the mechanical drudgework of uninspired hours.

Or, again, the careful student has gathered on some topic a large, chaotic mass of facts and arguments, and sits down hurriedly to write a paper, and forgets half the facts; they come in any way, they support no definite argumentative thread, they point no forcible conclusion, and he throws down his pen in despair. But another day an impulse comes to him to write, and lo! the dull statistics are alive, and all he knows, to the very utmost, is marshaled where it tells the best and most strongly supports his argument, and a great paper or essay is born; first to his own sur-

prise, and next to the surprise of the reading public. *And it takes;* dull statistics piled up ever so patiently never take; there is always an element wanting, a master-hand whose touch is missing.

And the psychologist tells us that all this is the work of the subconsciousness. Why not "supra" rather than "sub," for it does what the consciousness cannot do, and how much more can it do? For we have never yet studied its powers or learned how to avail ourselves of them.

Or, again, when a man gets up to speak, we assume that he has a general knowledge of his topic; if not he is counted out. He has got into the way of thinking (?) on his feet. Thought follows thought; illustration, never thought of, comes in just right, and either he does better than he ever thought he could, or sometimes he sits down calling himself a failure, only to learn later that he has made a great speech. So impersonal is all this, so far away from the everyday round of conscious thought.

Look at the spreading delusions of Faith- and Mind-cure, and the monstrosity, Christian Science! But was there ever a delusion or a heresy in which some truth did not lie hidden? Ever a misdirected popular impulse and upheaval, back of which there was not a living wrong to be righted?

What makes our organs work in the complicated mechanism called Man? Do our inferior engines and engineering wonders go on without a supervisor? Yet our mind knows comparatively nothing about our body in its daily working. What do we know of the subsequent history of our Thanksgiving pie or our Christmas pudding till we are wrecked by it. But within us something intelligent evidently provides for ordinary difficulties and emergencies, has some forethought and strives to compensate for our awful mistakes as best it may. Can this something be appealed to as we appeal to it on lying down to sleep, to wake us at a definite hour? Can the man with functionally disturbed heart command this something within him, that knows more about him than he does himself, to rectify the faulty action and calm the tumultuous throbbing?

Or can the dyspeptic say to this willing servant, or obedient even if unwilling slave, "rectify my difficulty," or "stop my pain?" To a certain extent even this seems not impossible. Perhaps we have never tried giving orders, or giving them in the right way.

And possibly the poor speaker might become a better one, were he—instead of blind and haphazard reliance on what he considers his own mental power — to exercise that power and will upon the real agent who knows how to bring up his facts and whose business it is to make up the successful argument from which his master is to gain the glory.

And possibly something depends upon the way one gives the order. If, doubtful of obedience, we order our dog in a half-hearted way, it is as likely as not he will not obey us. Firm command, firm reliance, and firm conviction that the order will be carried out may be necessary adjuncts to success.

This is a simpler and more direct method than the "isms" have tried, and more philosophical, and one destined to lead to much greater results. If there be any truth in the foregoing, then we may have before us an almost virgin field of power, from which the speaker, the writer, the poet, the inventor, may summon assistance at will; not as now, waiting for perfunctory and accidental aid, the aid of a hired servant bound only to a stipulated task.

The "isms" claim that the minds of many can be brought to bear upon *one*, but that is another question and we have not reached it yet.

When the thinking *ego* is overwhelmed with disease it can no longer appeal for aid or command it. It lies at the mercy of a power and insight that knows whether the machinery of life is damaged beyond repair, or whether care can mend it for further months or years. Certainly, we have no reason to expect from it the restoration of lost members or ruined organs.

Finally, it is well to ask whether experimental psychology and investigation has reached any facts tending to support the foregoing idea, namely, that there exists in man an undeveloped or partially used power, an unnoticed but invaluable agent and servant, independent of ordinary consciousness and the thinking processes that we call "our mind,"—a servant who may do many more

things for us than at present we dream of, if we but understand how to command its services.

The study of the phenomena of Hypnotism certainly has revealed a dual personality in man, a second self, hitherto unknown, sometimes acute, more often seemingly stolid or unwilling, even somewhat mysterious in its mental processes; at times alert, quick-witted, observant, with an excellent memory for things that the ordinary consciousness has forgotten. Evidently if a servant, a spying servant—its acute ear ever at the keyhole of daily life. And this underlying personality, it may be distinct, watchful, real, which has charge of the functions of organic life, which does our work for us while we sleep, arranges our facts for us while we go on observing, and at command can bring them out ready for use if we only know how to command it. This agent it is, though misunderstood, whose power the Faith- and Mind-cures and kindred schemes endeavor to use in their clumsy way, toiling up the heights and scrambling down the valleys, while the road that pierces straight through the mountain is overlooked; befogging the subject they only half understand with thrones and visionary religious additions. Yet it is in this direction that we too must look, in this field that we must work for something more than the chance and occasional discoveries of science and invention, and for the elevation of man above the discomforts or petty disorders and trivial drawbacks to success, and for a generally better and healthier life. It cannot be expected to save us from widespread epidemic disease, from malignant and deadly poisons, or from fatal accident, though in this last case lies the possibility that the whole story of apparitions may be but the history of this second consciousness endeavoring to warn us—often uselessly, often successfully—when we never know from what it has saved us. It cannot be expected to save us from the consequences of our evil deeds, but at least it can record them for future reference; and powers yet undeveloped may yet be at our command to lead us on to much that now seems unattainable and impossible. It is not too much to imagine that this may have been the meaning of the "Know thyself" of the Grecian sage, and the "Power of Faith" of the Christian teacher.

Whether this power be better or higher than our intellectuality, whether it be the surviving thing called instinct in the animal races, is a question. Certainly if instinct, it is more highly developed in us rather than less so, since it can manage figures and facts and imaginative flights and logic and reasoning, where the brute cannot venture; do problems in sleep for us that, waking, we have failed to solve; read books to their end which, waking, we have left unfinished. How much more it can do we have never discovered, for it will never be our servant until, with unbounded faith in its obedience, we as masters command it to do our will.

Philadelphia, Pennsylvania.

HYGIENE OF PUBLIC CONVEYANCES.

BY J. F. PRITCHARD, M.D.

In attempting to discuss the general problem of heating, ventilation and sanitation of public conveyances, I find that so far as the question concerns water transportation we cannot apply any rule, for the reason that while defects exist the exigencies of the service prevent any radical changes in construction, and this alone would not admit of suggestions of sanitation without greatly increasing danger in some other way—hence this branch of the subject may be dismissed. So too street-cars are generally under police control as to sanitation and disease prophylaxis, and as at the present time heating of these vehicles is the rule, I have no recommendations to make.

This leaves only the question of how to best heat, ventilate and care for railway coaches; and, while not dreaming that my suggestions may make any difference with railroad corporations, yet defects in systems may be pointed out and the possible remedy indicated. It has always, however, been my experience that railway managers are ready to adopt useful and wise suggestions, aiming to reach a desirable degree of perfection in the management of the vast properties under their control, thereby rendering them more desirable and attractive to the public. This of course is wholly selfish, but it seems to be in the usual way of business.

The problem of securing fairly good hy-

gienic conditions in a passenger coach presents more difficulties than any other question of the kind. From thirty to seventy-five people of all ages, conditions and temperaments ride from an hour or two to three or more days continuously, in a coach from fifty-five to sixty feet in length, with otherwise limited dimensions. These people vary in intelligence from the infant to the man "with a wheel in his head;" are of varying cleanliness or filth; all packed in a space that would speedily induce suffocation if the air was not almost completely changed every fifteen to thirty minutes.

Heating of railway coaches is now almost wholly regulated by legislation in different States, and nearly all require steam-heating. Whether this be wise or not it is the law, and until changed it cannot be expected other ideas will secure recognition. This plan was adopted to prevent the burning of coaches from stoves in case of derailment, and while it has very serious defects it also has advantages. The system in short consists in radiating heat from steam pipes more or less directly connected with the engine, but does not provide for warming a car if detached, and as a consequence people may be frozen instead of burned. Further, it has nothing to do with ventilation and merely warms air, more or less foul, that may be in the car when steam is turned on. Overheating is the rule, for it is very troublesome to regulate, requires constant attention, and also at the same time attention to ventilation to prevent suffocation.

A former method of warming coaches by means of a warm-air furnace at each end of the car was an ideal plan. There was a register between the seats at your feet, and each one had a supply of fresh warm air; but the legislatures considered this a stove and it had to be thrown aside. A few coaches on branch lines and mixed trains are still supplied with common stoves, and for comfort they are to be preferred to steam.

In parlor- and sleeping-cars the Baker heater, which consists of a small furnace with hot-water coils, furnishes a very agreeable warmth. These cars are in all cases in charge of a special attendant, who is responsible for the care, warmth, cleanliness, ventilation and the comfort of the passengers, and there is little to complain of. This has the advantage of warming the car whether attached to the train or not, and would be much better than steam-heating on all coaches. The heater is enclosed in a metallic-lined room or box, and so constructed that in case of derailment the fire in the stove is extinguished by the water in the pipes even if the car should be ignited from the stove, which is very doubtful.

Many theoretical plans of ventilation for railway cars have been exploited, but all are failures. I find there is nothing better at the present time than the tilting deck sash found on all railway coaches. They can be regulated to suit the varying number of passengers, the speed of the train, the velocity of the wind — in fact almost all contingencies except the whims of cranks; and no matter what system may be adopted, however elaborate or complete, it will never suit the growler. Some of the different plans for supplying fresh air that have been presented are absurd, and as an instance I will mention one, in which it was seriously proposed to take air from the front of the engine and distribute it through a large tube to the train. The mechanical difficulties of this are apparent at a glance.

These problems are being constantly studied by car-builders and railway men, and when new coaches are ordered specifications are furnished by the railway company, to which are added suggestions from the builders. Thus all the latest and best improvements are adopted, and medical men as non-experts in this class of work can hardly offer practical hints.

But in sanitation the medical man has a right to offer help, even though it is a subject not very well understood by a majority of the profession, and widely misunderstood by the balance of the community. In discussing this question, however, it is necessary to begin, not with the railways, but with the traveling public. Will the people patronize the railway that is furnished with seats upholstered in plain, easily cleaned leather, woven wire or perforated wood, when running parallel to another with beautiful plush-covered seats, Wilton carpets, fine curtains, and artistic draperies?—And there certainly is nothing more dangerous or better carriers of disease than the latter. Plush-covered

seats are most difficult to clean or keep clean, from the kind of material used, and the backs being fixed so that they cannot readily be removed from the car. Notice when riding on a night train the condition of a smoking-car in the morning after a night's run through mining or lumber districts, and then make a suggestion for sanitation! Decent pigs would hardly leave as much nastiness. To whom should the remedy be applied? Not to the railway company certainly.

How luxurious are the sleeping-cars run on the railroads of this country; nothing equals them in the world! They would be safe and not carriers of disease if each family could have one, but it provokes a shudder to think of the results that may follow confining different diseased and healthy people in one of these palaces on wheels for a week or more, as on trips to the Pacific coast or Mexico, during which cleansing is impracticable, and great variations in heat and cold, with corresponding facilities for germinating disease, exist. Various suggestions have been made to remedy this danger. For instance, a hospital car for these long journeys for sick people, or a car devoted entirely to sick people, not to be called a hospital car. But if the railways should attempt to operate a hospital car would it be patronized? It would run without passengers even if supplied with competent physicians and nurses. I hope I am mistaken, but the doubt is so large in the minds of railway men that they have not even attempted it.

The remedy is in the hands of the people who travel only, and they must demand, or rather patronize, only such cars as are upholstered with material that can be readily cleansed; then companies would soon meet the demand. There should be no part of a car that cannot be readily and thoroughly washed with hot water and soap and the best disinfectants, and no part of the draperies and seat furnishings that cannot be quickly and easily cleansed by boiling without injury to the material used in construction. This would be best accomplished, in so far as smoking-cars are concerned, if they were provided with seats similar to those used on some European roads. These are very comfortably made of galvanized woven wire so enameled or prepared as to resist the action of hot water, soap, and the chemicals usually used in disinfecting. These seats have an additional advantage in not readily collecting filth. It is an ideal seat for such coaches from a sanitary and economical point of view.

In the other coaches of the train the upholstering should be of leather or some similar material that admits of washing and being easily cleansed. Such would not collect dirt, especially with cushions easily removable—perhaps made similar to seats in sleeping-cars—and if these cushions could be made interchangeable much time and labor would be saved in renovating. For instance, with one or two extra sets of cushions a train could be made ready and thoroughly washed and disinfected in a very short time by changing seat cushions. In sleeping- and palace-cars carpets are one serious source of contagion. People subject to cough do not always look for a cuspidor. The expectorated matter is very soon ready for inhalation by the constant agitation of either broom or feet on the surface of the carpet; it cannot be moistened as a bare floor could, and what follows? In these cars it would be much better to avoid carpets entirely, and use no draperies or bedding that cannot be boiled. Bedding, including sheets, blankets and everything in contact with the individual, should be treated as sheets and pillow covers now are. The covering of the loose cushions of seats ought to be of material similar to that mentioned for day coaches.

I feel certain that sleeping-car companies would gladly welcome such a change. They would be ready to do away with expensive draperies and thus lessen the cost in the care and construction of these cars, which are necessarily always thoroughly renovated at the terminus after each trip.

In regard to the cleansing of ordinary coaches, I am sorry to say that but little thorough attention is given to it. Ordinary cleaners, men or women, raise a dust that settles on the cushions, which are afterwards brushed, only to drive the dust to some other part of the car—that is, all that does not remain in the cushion. This cannot be much improved upon because plush cannot be washed, and without hot water and soap at

regular intervals proper renovating is impossible. It is always possible to raise a coating of dust on a coach seat that has been in use for a short time, and what this dust is composed of is very strongly stated by noted sanitarians.

Can plush cushions be rendered safe and free from a dangerous amount of disease germs? The problem admits of grave doubts; but loose cushions, regularly cleansed in the open air by thorough beating, and then exposed to steam at high pressure, can be rendered comparatively safe; but this would require considerable outlay and could not be made available except at a few points, and would not provide for branch lines or specific divisions. In other words, plush cushions with proper trouble might be made disease free, but in ordinary use such is impracticable.

Another important matter is water-supply. I think while traveling it is safer not to drink water unless one is proof against all manner of diseases. The water supplied is carried in pails, not always clean, from any convenient source, and after being poured into the tanks a piece of ice is dropped in and it is ready. That these water-coolers are ever cleaned is not probable in the ordinary course of things; I am not aware that they are ever looked after until the car goes to the shop; in fact, an instance is recorded in which a baby's diaper was found in the water-tank by a voluntary inspector; and by analysis, water has been found in them that was wholly unfit for use.

Water-closets are another necessary nuisance that need looking after. By actual inspection it has been found that of ladies' closets ninety-five per cent. are found clean and in good condition; yet of the men's closets you will agree that nearly the same percentage is the other way and an abomination. But this question is to my mind being solved in the right way. In some sleeping coaches is a simple closet with a tank filled with water, and a double cover so constructed as to work automatically and always have a supply of fresh water in the hopper. There is no urinal in cars supplied with these closets, as the closet is intended to be used as a urinal. Here one rarely discovers any unpleasant odor, and while they are not perfect in action they are a move in the right direction. In many of the newer day coaches a similar contrivance is in use — merely an earthenware or enameled iron hopper with a double-hinged seat and no urinal. These closets are practically safe and not a nuisance as the older style of urinals always have been, so that this part of the question is answered by removing the urinals and substituting one or the other of the above closets.

The transportation of contagious diseases is a question that is almost wholly in the province of physicians and local health boards. Virulent contagious diseases are often transported in railway cars, and when discovered I believe that the local health officer has the power (at least I have known it to be exercised) to side-track the car and cause it to be thoroughly disinfected before allowing it to proceed or be used again. But here the remedy is prevention. Why will physicians be so criminally careless as to allow such patients to travel? Or is it in ignorance, which is equally criminal? In all cases of doubt apply the time-card rule and "adopt only the safe course."

The recommendations then that I find practicable are:

To avoid plush cushions or draperies of any description that will not stand hot water, soap or proper disinfectants, substituting therefor only such material as can be readily and cheaply cleaned, and that will not collect dirt or dust; make all cushions easily removable so that they may be cleaned outside of the car—extra sets of interchangeable cushions would be better; avoid the use of carpets entirely, and have spittoons supplied with water and some chemical disinfectant:

Remove all urinals from cars, substituting water-closets or hopper-closets with double-hinged lid and cover:

Instead of the present method of coach cleaning, all coaches should be thoroughly scrubbed with soap and hot water as often as necessary, and not less than once a week in any case, with thorough disinfection by live steam or chemicals; wash all woodwork at the same time:

As to ventilation and heating I have no recommendations to make at the present time, believing that what is in use is wholly

adequate for all needs if proper supervision be had by men employed by railway companies for that purpose:

Water-coolers to be thoroughly cleaned and scalded at the end of each trip, and supplied only with water from a known pure source of supply, and under no circumstances put ice directly in the water, but cool if need be by a properly constructed double-walled water-tank. These tanks should not be placed in the closets with a pipe running through the closet wall, but on a bracket in the car, or if possible dispensed with altogether, as water is one of the greatest known carriers of disease.

In conclusion I may merely mention the sanitation of depots and depot ground, which being wholly in the hands of local health boards does not properly belong to a subject of this nature, as it is not a matter of public conveyance, but wholly local.

Manitowoc, Wisconsin.

ASEPTIC SURGERY IN THE COUNTRY.

BY L. C. BICKFORD, M.D.

On December 22d last, at 5 P.M., I was summoned to attend a woman who had been accidentally shot. I found the whole charge of shot had passed directly through the ankle, below and in front of the lower articulating surfaces of the leg bones, shattering the tarsals so badly that the contour of the foot could not be retained owing to loss of bony support. She was very much weakened by loss of blood—had lost at least a quart, and probably it would not be overstating the matter should I say three pints, since nothing had been done toward checking the flow.

It was decided to amputate. When one witnesses aseptic surgical operations in city hospitals and sees the surgeon surrounded by a corps of sterilized assistants—and mayhap sterilized nurses as well, since removal of the ovaries is one of the common operations of the day—with an abundance of towels, gauze, cotton, etc., all sterilized, and antiseptic solutions in profusion, the operator not even venturing to wipe the perspiration from his face except with a cloth from the sterilizer,—it may readily be said that the millenium of cleanliness has appeared, and that it is now truly next to godliness. But while I am an ardent advocate of the modern principles of asepsis and antisepsis, and would if practicable adhere to them in every minute detail, such are often very far from possible in the experience of country practitioners.

To begin with, in this case the only receptacle that could be obtained for the bichloride solution in which the sponges were immersed was a large wash-bowl kindly loaned by a benevolent neighbor; a second one, which was quite as essential, could not be procured.

The instruments were sterilized by boiling in soda solution, but on asking for a large platter in which to immerse them in a one-to-forty carbolic solution, such a thing could not be had, and it was necessary to compromise by employing a large sheet iron baking pan of mourning hue,—which, by the way, required first to be emptied of hot biscuits. But the pan was scoured and boiled in soda solution and then made the receptacle of carbolic fluid.

Towels likewise were conspicuous — by their scarcity. Nevertheless dressings, instruments, etc., were made as sterile as possible. One element not to be found in hospital wards was had in profusion, viz., an abundance of fresh air, and I doubt not this to a great extent counterbalanced the lack of customary orthodox conveniences.

After having scrubbed my hands, and being about to immerse them in a bichloride solution, a woman with the air of one conferring a special favor produced a cake of soap and a towel.

The preparations finished, and field of operation sterilized, the amputation was proceeded with, being made in the lower third of the leg. All bleeding vessels were secured; the wound douched with hot bichloride solution; the flaps sutured and dusted with iodoform and a gauze dressing applied, in turn covered by absorbent cotton and bandage.

Thirteen days after the operation all but three of the sutures were removed, and four days later even the latter were taken away. During all this time not a drop of pus had appeared. The pulse never rose above 96, and the highest temperature at any time did not exceed 100.6°.

Some of the more favored of the medical brethren might have beheld our attempt at

asepsis with awe or contempt, as the case might be. Nevertheless the result would satisfy the most exacting, even those who are surrounded with all the surgical conveniences of this progressive age.

After all, "it is facts, not theories"—"results, not processes"—that the patient needs.

Wiscasset, Maine.

MYXŒDEMA.

BY G. W. M'GREGOR, M.D.

Mrs. M——, aged 40, of healthy parentage, married twelve years, had good health until about seven years ago, when she was seized with what was termed "slow fever" and confined to bed for several weeks; she made a slow recovery. During this illness her skin became tawny, and instead of ultimately clearing became darker. In the spring following she became pregnant, and had nausea two months, was emaciated throughout, and gave birth to a badly-nourished child. She made a good recovery, though never became strong, and after a few months began to bloat, which state was continuous until thyroid treatment was begun.

In August, 1892, she went to Philadelphia for ten months and appeared better, but on returning to New Hampshire became worse, and continued to grow so. When I saw her, two and one-half years ago, she was so changed from a fair young woman as to be scarcely recognizable; her form and features were such as to, at first sight, suggest Bright's disease. Her skin was dark, dry, and tawny, thickened on forehead and wrinkled; œdema of lids so that eyes were half closed; face broadened, nose enlarged, and lips swollen; under lip everted and blue; neck thickened and shortened; supra-clavicular regions padded; hand and fingers very large, and entire trunk overgrown. The lower extremities were not so much affected. Her gait was moderate, rolling, sailor-like. Skin of entire body roughened, dry, and furfuraceous; no perspiration for at least three years; always complained of being "cold," and rarely indulged in a bath because of feeling chilly; uncomfortably cold in summer, even with a fire. Hair coarse, brittle, and thin. Bowels constipated; no change in action of kidneys. Menses every three weeks since birth of child, more than normal in amount, and the last year or so more frequent and excessive, very dark, with strong odor. Mental faculties dull; speech slow; despondent; no headache, though nervous; sleep less than normal; could not read as her eyes became tired.

I examined her urine for evidence of Bright's disease and was surprised to find no albumen; and not for more than a year thereafter was a diagnosis of myxœdema made. Treatment was begun at once with five-grain doses of thyroid, gradually increasing to fifteen grains per day. Some faintness was experienced at first, but the dose was continued for some weeks and then gradually discontinued.

The effect of thyroid feeding was marvelous, and at the end of three weeks she was almost wholly restored, physically and mentally, except her skin was yet dark, though clearing. The menses and bowels became regular, perspiration occurred, appetite returned, and while she could scarcely get about the house before, she now could walk any distance.

In this connection it is interesting to note the effect of thyroid feeding in two cases of goitre. The first was that of a young mother with her first babe, who had been goitrous for several years, and during pregnancy markedly so. I was surprised to be called in a few days to see the babe, whose neck was even with the chin and head tilted backward from the fulness and largeness of a goitre. No enlargement of the babe's thyroid was recognized at confinement, but the growth was so rapid during the few weeks intervening from its birth that it was in danger of suffocation from pressure.

About this time I read an excellent article on thyroid feeding in the *New York Medical Journal*, and so prescribed for both the mother and child. The improvement was immediate, and a cure complete for the babe, with a greatly manifest diminution in that of the mother. Only at first was the thyroid exhibited to the child directly; subsequently through nursing the mother.

The second patient began treatment, but soon gave it up on account of faintness and palpitation, with a trembling of the knees. In the short time that she was taking thyroids the circumference of her neck was lessened by one and one-fourth inches, but this, being accompanied with a general loss of weight, cannot be claimed as a reduction of the goitre. It is now some months since she ceased taking the remedy, yet her weight has not been restored, which condition of cause

and effect confirms some expressed opinions of a reduction of obesity by the use of this medicament.

It is not my purpose to enter into the pathology of this disease except in so far, and in such manner, as to present its symptomatology in a sufficiently lucid way to give a general outline of its appearance.

As its name indicates, myxœdema is an œdematous condition, differing from œdema of heart, liver or kidney disease in that it does not pit on pressure. Its developmental stage is slow, sometimes occupying many years; its subjective symptoms keeping pace, *pari passu*, with the objective. From the scantiness of literature upon this subject there results a paucity of disseminated knowledge. Until recently data upon which to build were wanting, a mere recognition of the disease being sufficient to consign the unfortunate patient to the list of incurables; but during the present decade, in which such marvelous strides in the sciences have been made, the pathology of myxœdema has been studied and a remedy found which—though not a specific—relieves, and under its continued influence restores the patient to a life of comparative immunity.

It has been conclusively demonstrated that the causation lies with the thyroid gland, either in its absence or disease, so that its functional activity is destroyed; the system thus being deprived of the glandular product, and myxœdema resulting strictly therefrom.

The thyroid gland consists of two lobes connected by an isthmus; it is situated at the upper part of the trachea, measures about two inches in length, and weighs from one to two ounces; it is larger in the female; at birth, relative weight one to four hundred; adult, relative weight one to eighteen hundred.

That the thyroid secretion is an important factor in the animal economy is proven beyond cavil by numerous experiments upon lower animals, as well as the observed results of extirpation and disease in the human body. What correlative relation may exist between the thyroid, spleen, and pituitary body is largely conjectural, although it seems to be proven that the removal of one induces a temporary compensatory enlargement of the others; certain it is that its particular secretion cannot be dispensed with and a normal condition maintained. The influence by which it produces its results is not so certain. Whether the so-called colloidal secretion of the thyroid gland neutralizes the deleterious product that causes myxœdema, or whether it transforms this into a harmless product, is undetermined.

Whether the faintness and trembling of limbs following the ingestion of thyroids be due to its excess in the blood, or to irritation of products liberated from diseased tissue, or from absence of the long-tolerated irritation of the nervous system consequent upon its elimination, is an interesting problem, the solution of which is engaging the attention of investigators.

The assertion is made by some that myxœdema, goitre, cretinism, and acromegaly are but different manifestations of the same disease, and the claim put forth to substantiate this assertion is based upon the fact that in all the thyroid gland is either absent or functionless.

The treatment of these affections by thyroid feeding, with uniformly good results, seems to bear out the plausibility at least of their common origin; but in a given case of absence of the thyroid gland it is not possible to calculate along what line it will develop, if indeed it depart from the normal development.

Manifestly "there is a destiny that shapes" the type of the disease yet unsolved. This is a promising field for research, and one sure to yield, as indeed it already has yielded, bountiful returns.

Littleton, New Hampshire.

TUBERCULOSIS.

An exchange declares that this disease is very common among dogs, cats, and parrots.

And this is in a measure true, the parrots being most prone thereto. Monkeys are still more prone, usually because they are kept in too confined space without a proper supply of fresh air.

The great trouble in keeping pets is that the average woman insists upon keeping them too warm, especially if their habitat is supposed to be the tropics or sub-tropics.

THE MEDICAL AGE.

A SEMI-MONTHLY REVIEW OF MEDICINE.

—PUBLISHED BY—

GEO. S. DAVIS, Medical Publisher, Box 470.

All communications regarding papers, reports, etc., should be addressed to the Editor of the MEDICAL AGE, P. O. Box 470, Detroit, Mich.

Matters relating to advertising space, etc., to be addressed to the publisher, Geo. S. Davis, Box 470, Detroit, Mich.

The editor cannot engage to return rejected manuscripts or to correspond with the writers thereof, unless such are accompanied by sufficient postage.

DETROIT, MICH., MARCH 25th, 1897.

Editorial.

A REMARKABLE CASE.

In *The Lancet* (London) of February 27th appears a most remarkable case of unsuspected pregnancy, which was revealed at an inquest held by Doctor Wynn Westcott. The facts briefly were as follows:

The patient's husband went to work at 7.30 A.M., his wife then appearing to be in her usual health. When he came back to breakfast at nine o'clock he found his wife lying dead on the bed, and the body of a child on the floor. Although there was a woman in the next room no sound was heard during his absence. The husband gave evidence that he had no idea his wife was pregnant, and also that he did not think she knew it herself. On this the coroner remarked that the case was the most remarkable on record. We may say that the woman's death was due to hæmorrhage, and that the child, who is described as having been fully developed, died from suffocation. The case is an interesting and remarkable one, but is far from being unprecedented. As regards unconsciousness of advanced pregnancy in *unmarried* women, though their statements must obviously be accepted with reserve, it seems to have been established that when intercourse has taken place under such circumstances the occurrence of pregnancy appears to the woman to be impossible and she may naturally and in good faith attribute her symptoms to disease rather than to pregnancy. Coming now to the case of a married woman, the probability of her remaining unconscious of her condition in advanced pregnancy is much less, but there is also generally more reason for accepting her statement as true. That a married woman my remain ignorant of her condition up to the time of full term labor is established by Doctor Tanner's case, quoted by Guy and Ferrier, of a woman, aged forty-two years and three years married, who menstruated scantily for five or six months, and then menstruation ceased for nine months. She was taken in labor and delivered of a mature female child by instruments. Both parents are said to have been anxious to have children, but the woman had no idea she was pregnant and could scarcely believe not only the fact of the pregnancy, but that she had been in labor for ten hours. Another case—the Hawkins divorce case, also quoted by Guy and Ferrier—shows that those about the patient, even her husband sleeping with her till within five minutes of her delivery, may remain ignorant of the pregnancy. In that case the Lord Chancellor was convinced that the petitioner (the husband) had remained ignorant of his wife's condition even in the circumstances above stated. Presumably, in the case on which an inquest has just been held, the husband had been sleeping with his wife till within an hour or so of her confinement, yet he said he had no idea of her condition, and there seems no reason, such as might have been present in the Hawkins case, for doubting the truth of his statement.

This case is extremely interesting, in that it establishes clearly the possibility of ignorance of pregnancy existing on the part both of the woman and of her husband up till the very last moment.

ARECA CATECHU.

This drug is very extensively used in the treatment of helminthiasis in dogs, yet it is not altogether satisfactory inasmuch as it presents many elements of danger. Recently our attention was called to a proprietary remedy for dogs which is extensively marketed, and has on several occasions induced apparently undue results, even to fatality; it consists chiefly of santonin, areca nut, and cascara sagrada. One fault with the remedy doubtless is that it does not embody a sufficiently active cathartic; and another that no carminative was employed.

Where animals are already suffering from inflammatory conditions of the abdominal viscera, regardless of cause, however, areca nut is very apt to be dangerous. The combination of areca nut and santonin moreover is unphysiological; they have not the same precise action, neither is santonin demanded in those cases where the action of areca nut is desired, and *vice versa*. Again, areca nut never should be administered to dogs without first being combined with some such corrective as camphor monobromide.

The *Chemical News* recently chronicled

several cases of poison by areca nut where a teaspoonful was mixed with half a teacupful of castor oil, the entire amount being divided among four animals. In less than five minutes they experienced great difficulty in breathing, coughed slightly, and fell down on one side. An emetic saved the life of two, while the other pair died in ten minutes. A third dog given a like dose, in spite of an emetic died after five hours. An alkaloidal substance was subsequently found in all these dogs' stomachs, but in too small quantity to determine whether or not it was arcoline.

This goes to show that areca nut is far from being the harmless medicament it is generally considered to be, and that it is especially unsafe in the hands of the laity. We may also add the same is also true of castor oil so far as canines are concerned.

STREET NOISES.

Does the average practitioner ever think of or take into account the various noises that obtain in a large and thickly inhabited community to the general detriment of the ill and nervous?

Many among healthy individuals, of course, become so accustomed to street noises that they excite no comment and hence do not in the least constitute a disturbance; and yet these same individuals stretched upon a sick bed may become very sensitive thereto. In the stone-paved streets of the cities of Great Britain it is not uncommon to see straw distributed with lavish hand for a block or more, with no other purpose in view than deadening the sound of passing wheeled vehicles that might otherwise disturb the rest of some invalid; but in the United States such an act would probably bring down the anathemas of the neighborhood, perhaps even to "getting one into trouble with the police."

Where electric cars are continually passing with the constant rattle of the gong as manipulated by the motorman, the jangling of the bell that conveys the signals of the conductor, coupled with the pounding of the wheels upon the rail and hissing of the trolley upon the wire, these singly and collectively constitute one of the most exasperating of the worries of the afflicted, particularly in summer when the windows are perforce left open to secure the desired amount of fresh air and coolness. Think of the invalid subjected to this once every five to seven minutes!

Then there are the street cries; and thrice daily the screeching of the whistles and jangling of great bells; the crash of rapidly moving fire engines; the howling blasts of railroad engines and of boats—all tending to make a Pandemonium that oftentimes is all but unbearable to one already half-demented as the result of high temperature and burning fever.

Is it not fully time some of these barbarisms were done away with? The street-cars of course cannot be governed, any more than can the rattling obtaining to the movements of fire engines and vehicles—at least not until there is a radical change in the arrangement of wheels, and perhaps in rails and pavements as well. Some cities have already set a good example in attempts to suppress these nuisances. Indianapolis, for instance, has forbidden the blowing of whistles and horns within the city limits.

Proper municipal reform will embrace not only the foregoing, but lead to suppression of all ringing of bells in church steeples and upon engines, all blowing of whistles as regards factories, steamers, and locomotives. The church bell is a medieval relic that does not in the least tend to inculcate Divine precepts—rather the contrary! It might be tolerated if there was any good reason therefor, or even if there was any unison or suggestion of harmony; but instead noise and evidence of money expended alone seems to be the ends in view. The churchgoer certainly does not depend upon iron tongues and brazen throats to inform him of the hours of service. Neither does the factory-hand require a whistle to call him or her to their duties—the check window and timekeeper are far more effective. Are there then any cogent reasons why both these nuisances should not be forever suppressed, not only in the interests of the ill but as a means of ensuring rest and comfort to the community at large?

Again, the railway whistle might easily be replaced by a bit of the block system of rail, which would convey the desired information to the watchman at the crossing, or to the

agent, by electricity. So too the locomotive bell in the same way might be replaced by electric gongs fixed at each and every crossing.

Surely there is no excuse in these days of flag-signals, telephones and telegraphy for the prolonged sounding of whistles by steamers, the sole purpose of which is to inform owners that their property is passing—a bit of information that could better be conveyed by the marine reporter through telephone or over wire, and that moreover is almost invariably chronicled in the morning and evening papers; neither is the prolonged three blasts that heralds the approach to a wharf at all essential. Let these things be positively forbidden except in cases of fog or to signal approaching craft to designate the course to be steered. As already remarked, the majority of these nuisances arise from the desire to make a noise; and it is solely for this reason that every newly built house of worship in a small community attempts to secure a larger and louder bell than its neighbors. These noises in the large cities on some days, or on parts of days, are almost continuous.

Truly this is a matter it behooves medical men to look after and bring before the municipal authorities of every large community with a view of permanently suppressing, or at least in great measure mitigating. The regulation of whistling by steamers on large waterways, however, may perhaps require the consent and legislation of the National Government, but even that, considering the object to be gained, should be far from a Herculean task.

EDITORIAL NOTES.

The Dog as Food.—

There should not be—and there is not—anything in the flesh of the dog that is distasteful or repulsive, for he is a much more cleanly creature in diet and otherwise than some of the fishes which are esteemed delicacies. In the Sandwich Islands *lanau* dog has been a well known dish, though the animal is generally supposed to have been brought up on exclusive vegetable diet; and in the South Sea Islands generally it is not despised. All the Indian tribes partake of dog flesh, and Lewis and Clark, the explorers, who learned to eat it through compulsion, actually became fond of it in time. Perhaps it is not generally known that the canine is still a favorite article of food among certain peoples, commonly supposed to be "civilized." But recently an item has been going the rounds of the French newspapers to the effect that the number of dogs slaughtered at the *abattoirs* in Munich has increased amazingly within a very short period. The taste for dog flesh is said to have been imported by Italian navvies, who have recently come in large numbers to the Bavarian capital. It is further stated that the meat is generally used throughout Europe as an adulterant for sausage, and in the southern portions thereof, notably Greece, Italy, and Spain, is openly partaken of under its own name, being prepared in various ways.

Salix Nigra as a Sedative.—

In acute gonorrhœa with much erotic trouble, and in chordee with great irritation, the *Chicago Medical Times* says: "Give from thirty to sixty drops of *salix nigra* on retiring, repeating again at midnight or toward morning, if needed. Nothing gives more satisfaction than this remedy, as it robs the night of its terrors and leaves no unpleasant consequences in its train. In excessive venereal desire, amounting to satyriasis, this should be the first remedy employed, inasmuch as it controls venereal appetite in a very satisfactory manner."

We may add it is a very effective substitute for the bromides in the foregoing class of cases, and may be administered when the latter could not be borne, since there is no reflex effect upon brain or nervous system.

Prevention in Scarlatina.—

In days past belladonna has been recommended as a prophylactic against scarlet fever, having been introduced by the homœopathic fraternity under the supposed law of *similia*.

The latest claim made is that arsenic is an effective prophylactic, and the *Revue de Thérapeutique* details cases of twelve children so treated, all of whom were in immediate contact with the disease (no attempt

having been made at isolation), and yet not a single one contracted the malady. In addition Sperawsky details two cases of scarlatina treated with arsenic, in both of which there was speedy recovery, and in one the patient was able to resume work within a week after seizure.

Croup and Diphtheria.—

A writer in an exchange declares that during twenty years with large experience he has never yet lost a patient from either of these maladies, simply because he used the juice of ripe pokeberries and alcohol, equal parts, giving ten drops in a teaspoonful of water every thirty minutes.

We would like very much to see this statement substantiated.

Quinine in Suppositories.—

Doctor Brunton recommends administration of quinine by rectum in suppositories containing ten to twenty grains each, and asserts he thus secures good results without nausea, headache, singing in the ears, etc. He advises this method in all cases of fever, and for general use in treating the maladies of children.

The American Medical Association.—

This organization will hold its forty-eighth annual session in Philadelphia on Tuesday, Wednesday, Thursday, and Friday, June 1st to 4th inclusive. Nicholas Senn will deliver the Presidential Address; William W. Keen the Address on Surgery; and Austin Flint that on Medicine.

Status Epilepticus.—

Doctor Oliver Robinson, in *The Lancet* (London), insists that amyl nitrite, in doses of three minims by inhalation, will be found an effective preventive in this condition. It may even be given during the incipient attack with great probabilities of success.

Scarlatina Nephritis.—

Doctor Childs writes the *Medical Council* that the free use of *Triticum repens* four or five times a day will effectually prevent the kidney complications that accompany or follow scarlatina.

Items and News.

The Hunt in Bohemia.—

An Austrian journal gives the following interesting statistics of the results of hunting on Sunday in Bohemia during 1895:

The "Sontagsjaeger," or those amateurs who can get away from their occupations on Sunday only for a quiet hunt, were spread over 12,384 villages, and have averaged 1000 shots each. During the year they have killed 27 men, 13 old women, 7 boys, and 3 little girls; 2104 men, mostly game-drivers, have been wounded. In addition they have killed 3 oxen, 12 cows, 132 calves, 276 goats, 57 rams, 72 sheep, 3671 hunting dogs, 11,491 other dogs, 8762 cats, 18 deer, 455 does, 149 hare, 322 partridges, 26 pheasants, 844 sparrows, and 2 horses. Finally, they have paid in indemnities 459,596 florins; in tips to the wounded, 633,093 florins; to the physicians and lawyers, 172,000 florins; have been in jail 74,388 hours for infraction of the game laws.—*Le Nord Medical.*

[This only goes to show the importance of a law requiring every one who carries or possesses firearms of any description to take out a license, for which a good round fee should be charged.—Ed.]

Crystallized Glycerin.—

At a recent meeting of the London Society of Public Analysts, Mr. Bevan exhibited some specimens of crystallized glycerin. Some time ago some glycerin had been submitted to him which consisted of a mass of small crystals resembling soft sugar. He had found that by dropping a small quantity of the crystals into ordinary glycerin kept at a temperature of about 15° C., fresh crystals were formed at a considerable rate. The glycerin above the crystals, or mother liquor, was weaker than the original glycerin, and, of course, much weaker than the crystals. Professor Dewar had obtained solid glycerin resembling glass, by cooling with the aid of solid carbonic acid and ether. Mr. Bodmer said that a sample of glycerin existed some years back at Guy's Hospital, which was absolutely solid, no mother liquor, the material being like a piece of ice.

Sense of Smell.—

The acuteness of this sense is far greater in many of the lower animals (dogs, for example) than in man, and they employ it in guiding them to their food, in warning them of approaching danger, and for other pur-

poses. The sphere of the susceptibility to various odors is more uniform and extended in man. The sense is capable of great cultivation. For example, in the well known case of James Mitchell, who was deaf and blind from birth, the sense of smell was his principal means of distinguishing persons and perceiving the approach of strangers.

Among many savage tribes the sense of smell is almost as acute as in many of the lower animals. Humboldt says the Peruvian Indians are able in the middle of the night to distinguish whether an approaching stranger is a European, American Indian, or negro.—*Lancet-Clinic.*

Wasps and Suicide.—

A short time ago M. Henry, a Frenchman, being curious to see the effect of benzine on a wasp, put some of it under a glass in which a wasp was imprisoned. The wasp immediately showed signs of great annoyance and anger, darting at a piece of paper which had introduced the benzine into his cell. By-and-by he seems to have given up the unequal contest in despair, for he lay down on his back, and, bending up his abdomen, planted his sting thrice into his body, and then died. M. Henry allowed his scientific interest to overcome his humanity so far as to repeat the experiment with three wasps, only to find that the other two did likewise. He is, therefore, of opinion that wasps, under desperate circumstances, commit suicide.—*Eclectic Magazine.*

Insect Larvæ in the Human Skin.—

Some attention has lately been drawn in the dermatological world to the occurrence of the larvæ of insects in the human skin. The writers do not seem to be aware that cases of the kind were met with in Ireland some years ago, and were duly recorded in these columns. One of the creatures was minutely described and figured by Doctor P. S. Abraham in our issue for April 27th, 1882, Doctor Abraham at that time being the Curator of the Museum at the Royal College of Surgeons, Ireland. The probability is that such cases are examples of common bot flies having made mistakes in the selection of their hosts.—*Medical Press and Circular.*

Accommodating.—

Judge Walton, of the Supreme Court of Georgia, once sentenced a man to seven years in prison. The offense was clearly proved and of a grave sort, but the prisoner's counsel put in a plea for a mitigation of the sentence, on the ground that his client's health was failing. "I am satisfied, your honor," pleaded the prisoner's counsel, "that he cannot live out half his term, and I beg you, therefore, to make it shorter." The Judge evidently felt the force of the plea, and after a moment's reflection, said: "Very well; under these circumstances I will alter the sentence. I will make it for life instead of for seven years."—*Homœopathic News.*

A Kicker.—

He kicked the moment he was born,
  In a stalwart, lusty cry;
He kicked and howled in his babyhood
  Till the neighbors thought they'd die.
He kicked when first he went to school,
  And he scratched the nursemaid, too.
He kicked on his college foot ball team—
  Yes, he kicked his whole life through.

He kicked right hard in politics,
  Though he didn't often vote,
And he kicked at the way the choir sang,
  Though he couldn't sing a note.
He kicked the bucket finally,
  And nobody mourned, you bet!
But unless his legs have been burned off,
  He is probably kicking yet.

—*Somerville Journal.*

Error in Diagnosis.—

When Doctor Bowling, a pioneer medical man in the South, began practice, he settled in the wilds of Kentucky, where he sat in front of his cabin for six months without a call. At last he heard the clatter of a horse's hoofs, and a lank, barefooted Kentuckian appeared. "Are you a doctor?" he asked. "Yes, and a good one," said Bowling. "What's the matter with that'ar foot?" the man inquired, placing his heel on the fence. The doctor examined it closely, and replied: "That, sir, is erysipelas." "Ery-hell!" the man replied; "a bee stung me." The doctor moved to Nashville.—*Dominion Medical Monthly.*

Strange Senses of Animals.—

Certain senses in insects appear to be beyond comprehension. The neuters among the ants known as "termites" are blind, and can have no sense of light in their burrowings; yet they will reduce a beam of wood or an elaborate piece of furniture to a mere shell without once gnawing through to the surface. An analogy is found among mammals. A bat in a lighted room, though blinded, will fly in all directions with great swiftness and with infallible certainty of avoiding concussion or contact with any object. It seems to be able to feel at distance.—*Medico-Legal Journal.*

Strength of the Beetle.—

A noted entomologist who had been writing on the wonderful feats of strength as exhibited in the beetle family, tells the following: I selected a common black water-beetle, weighing 4½ grains, and found that he was able to carry a load of shot in a small bag, the whole weighing 8¼ ounces, or exactly 858 times the weight of the bug If a man weighing 150 pounds could carry as much accordingly, he could shoulder a 45-ton locomotive and then chain a train of cars together and take the whole lot across the country at a five-mile-an-hour gait.—*Popular Science News.*

Bicycle Examinations.—

In Vienna, all bicycle-riders, before obtaining permission to appear on the public streets, are required to ride between boards laid on the floor without touching the sides or edges of them. At the word of command they must be able to dismount either right, left, or backward. Until this examination is passed satisfactorily, a license to ride on the public highway is refused.

Michigan State Medical Society.—

The thirty-second annual meeting of this organization will be held at Grand Rapids, Michigan, on Thursday and Friday, May 13th and 14th, 1897. The secretary is Doctor Collins Johnston, of Grand Rapids.

Physicians and Pharmacists.—

Schweninger, Bismarck's physician, says the medical man who places himself at the service of pharmacists and aids them to lay up a fortune at the expense of humanity, dishonors his calling.

Symptoms.—

The best symptom in any patient is prompt pay. As long as it lasts you need not care what else ails him, unless he is likely to die.—*Medical Record.*

Patent Medicines.—

It is estimated that there are between ten and twelve thousand workmen regularly employed in the manufacture of American nostrums.

Pasteurism and Hydrophobia.—

The Pasteur treatment for hydrophobia scored a brilliant failure at Baltimore.

Diphtheria—

Is said to have made its first appearance in New England about 1659.

Book Reviews.

INEBRIETY: ITS SOURCE, PREVENTION, AND CURE. By Charles Follen Palmer. Cloth; 16mo; pp. 109. The Fleming H. Revell Co., Toronto, Chicago, and New York.

There is no doubt this book was written with a good purpose, but its author unfortunately is not familiar with either facts or conditions. The attempt is made to make a religio-physiological pamphlet, with the usual result where theology dominates, and where the author is not familiar with the exact phases of alcoholism. He has gathered considerable material, second-hand, but unfortunately his premises as drawn are in the main erroneous, not being borne out either by experience or facts.

SIXTEENTH ANNUAL REPORT OF THE STATE BOARD OF HEALTH OF NEW YORK. Cloth; 8vo; pp. 745. Wynkoop, Hallenbeck Crawford Co., Albany.

This is a most interesting and valuable report. Very elaborate information is afforded with regard to the systems of sewerage and sewage disposal in no less than eleven villages. Reports are given of investigations of rendering establishments and garbage reduction plants. Special reports are also made upon the disposal of sewage in a number of cities, including Dunkirk, Sodus, Binghamton, etc. A valuable volume of maps accompanies the report.

ARCHITECTURE AND BUILDING. Price, 10 cents; $4.00 per year. William T. Comstock, New York.

Contents of the March 13th issue: "Building Regulations Under the Greater New York Charter;" "Editorial Notes and Comments;" "The Great Mosque of the Omeiyades, Damascus" (IV); "In Streets and Papers;" "A Silver Palace for Omaha;" "The Dismal Swamp;" "Legal Notes;" "A New Drinking Fountain;" "American Institute of Architects;" "A Sculptural Machine;" "Personal;" "Obituary;" "College Matters;" "The Proposed Devonport Navy Yard;" "Literary Notes;" "Societies;" "Current Notes;" "Special Mention."

Contents of the March 20th issue: "Protest against the Charter;" "The Future of Madison Square Garden;" "Editorial Notes and Comments;" "The Planting and Construction of High Office Buildings" (IV); "Neatly Caught;" "In Streets and Papers;" "The Advancement of Architecture: With Some Remarks on the Study of Gothic;" "An Improved Method of Filtration;" "Report of the New York State Board of Health;" "Book Reviews;" "Societies;" "Obituary;" "Personal;" "Current Notes."

THE ATLANTIC MONTHLY. Price, 35 cents; $4.00 per year. Houghton, Mifflin & Co., Boston.

The April number opens with an article on "Dominant Forces in Western Life," by Frederick J. Turner. Others are: "Mark Twain as an Inter-

preter of American Character," by Charles M. Thompson; "Our Nominating System," by E. L. Godkin; "The Song o' Steam," by Arlo Bates; "Cheerful Yesterdays," by Thomas W. Higginson; "Mercury in the Light of Recent Discoveries," by Percival Lowell; "The Lady and the Parson," by Sally N. Robbins; "The Juggler," by Charles Egbert Craddock; "A Century of Anglo-Saxon Expansion," by Charles B Adams; "Bryant's Permanent Contribution to Literature," by Henry D. Sedgwick, Jr.; "The Demand for an American Literature," by Bradford Torrey; "A Reminiscence of Charles Reade," by Frances C. Baylor; "The Book that is not Written," by Mary H. Catherwood.

McClure's Magazine. Price, 10 cents; $1.00 per year. The S. S. McClure Co., New York.

The April issue contains a series of unpublished letters written by General Sherman to a young lady between whom and an Army officer the General undertook to re-establish a broken romantic relation. There is a story of "Western Life," by Octave Thanet; a "Drumtochty Story," by Ian Maclaren; a group of true railroad stories by Cy Warman; a sea story; and instalments of Robert Louis Stevenson's last novel, "St. Ives," and of Rudyard Kipling's tale of the "Grand Banks." Will H. Low contributes an article on "The Three Greatest Decorative Painters of the Present Time;" Henry Cabot Lodge gives a study of "Alexander Hamilton's Life and Public Services;" Hamlin Garland writes of "Grant's Life as a Farmer and Business Man in Missouri." There are the usual departments.

Vick's Magazine. Price, 5 cents; 50 cents per year. Vick Publishing Co., Rochester, N. Y.

The issue for March is an especially interesting number. The most notable articles are: "Polyantha Roses in Beds;" "Flowers of South Florida;" "An Interesting Bird" (the Shore Lark); "Early Spring Flowers;" "Fruit-Growing in Maryland and Delaware;" "The Herbaceous Spiræas;" "Spring and Summer in My Garden;" "The Bay Window;" "Spring Flowers;" "Country Summer Residence;" "How to Grow the English Gooseberry;" "Flowers at Funerals;" "The Dahlia;" "Manuring Strawberries;" "Seeds and Seed-Growing;" "Egg Plants;" "The *Scilla Siberica*;" "The Sweet Nightingale" (*Datura Wrightii*); "The Rathbun Blackberry;" "A Nine-Room House;" "Sweet Peas and Cut-worms;" "Lecture on Mushrooms;" "Coal Ashes and Wood Ashes."

The Badminton Magazine. Price, 30 cents; $3.50 per year. Longmans, Green & Co., New York.

The March issue contains: "Mr. Poulton's Putter," by Anthony C. Deane; "The Future of Fox-Hunting," by C. E. A. L. Rumbold; "The Homing Pigeon," by W. Bancroft; "The Rules of Billiards," by A. H. Boyd; "Old Sporting Prints," by Hadley Peek; "Tarpon-Fishing," by Hermoine Murphy-Grimshaw; "The Red Deer of Norway," by H. Seton-Karr; "The Wild Goats of the Cheviots," by Abel Chapman; "Hunting the Gipsy," by John Beer; "Favorite Meets;" "Notes by 'Rapier.'" The illustrations are by F. S. Wilson, G. H. Jalland, J. G. Keulemans, E. F. T. Bennett, E. Caldwell, H. M. Brock, John Beer, and N. J. Gibb.

The Living Age. Price, 15 cents; $6.00 per year. The Living Age Company, Boston.

Among the most noteworthy contents for March 13th are: "The Psychology of Feminism," an entertaining contribution to the discussion of the "New Woman;" an essay on "Victorian Literature," by Andrew Lang; a paper on "Recent Polar Exploration," by Prince Kropotkin; "Two Cyclones," a clever sketch by Lodovic Halevy; a chapter from Professor Roberts's new story of Acadia, "The Forge in the Forest;" some personal recollections of "Walt Whitman the Man;" and "A Sheaf of Recent Verse." There are the usual "Readings from American Magazines," and the usual variety in the body of the magazine.

Donahoe's Magazine. Price, 25 cents; $2.00 per year. Donahoe's Magazine Co., Boston.

The March issue is a symposium on "What is Best for Ireland," the contributors being Right Reverend Patrick O'Donnell, William O'Brien, John E. Redmond, Michael Davitt, O'Brien J. Atkinson, P. J. Timmins, M.D., and P. O'Neill Larkin. Other timely papers are "England's Robbery of Ireland," by George McSweeny, B.L., Dublin; "Senator Wolcott's European Mission," by Pierre Humbert; "New Orleans in War and in Peace," by William Peard and J. T. Connor. The departments are well supplied and illustrations excellent, and the number as a whole shows careful study to please its readers.

The American Naturalist. Price, 35 cents; $4.00 per year. The Edwards & Docker Co., Philadelphia.

The March issue contains: "Fossils and Fossilization" (continued), by L. P. Grattacap; "Bird Life in Central America," by Daniel F. Randolph; "Upon Certain Undescribed Species of Megascollides," by Frank Smith; "Birds of New Guinea" (continued), by G. S. Mead. There are also the usual departments devoted to Editorial, Editorial Notes, Petrography, Geology, Paleontology, Botany, Vegetable Physiology, Zoology, Embryology, Psychology, Anthropology, Recent Literature, Proceedings of Scientific Societies, Scientific News, etc.

The Open Court. Price, 10 cents; $1.00 per year. The Open Court Publishing Co., Chicago.

The March issue contains papers of especial interest. First appears Professor Tiele on "Christianity and Buddhism;" "The Next Papal Conclave" is by G. Fiamingo; "Mazdaism"—the religion of the ancient Persians—is by Doctor Paul Carus; "The Ordeal of Cannon Firing," by Felix L. Oswald; "In Nubibus" (II-III)—the cogitation of the smoking philosopher—is by Reverend G. J. Lowe; "Development of Ethics," by W. Llano; "The Religion of Our Ancestors" (Norse mythology), by the Editor. There are the usual Notes, Book Reviews, Correspondence, etc.

Clinical Gynæcology.—

The J. B. Lippincott Company, of Philadelphia, announce the speedy appearance of a new work on Clinical Gynæcology, of about one thousand pages, edited by John M. Keating and Henry C. Coe.

Therapeutic Brevities.

Puerperal Eclampsia.—Treatment should be preventive and remedial. The preventive should be subdivided into medicinal and hygienic, and the remedial into medicinal and obstetric. A qualitative and quantitative analysis of the urine must be made at the onset. If there is defective elimination something must be done speedily to correct a faulty relationship between nutrition and excretion. One of the surest ways to control progressive toxæmia is to place the woman upon an exclusive milk diet; this will also serve to flush the kidneys and thus favor elimination. Distilled water is one of the best diuretics; it increases activity and supplies material—two important elements. In the pre-eclamptic state, when there is a full pulse with tendency to cyanosis, one good full bleeding may be permissible, but its repetition should be regarded with suspicion. If there is a high arterial tension—vasomotor spasm—nitroglycerin in full doses is valuable.

When eclampsia is fully established, the first indication is to control the convulsions. Full chloroform anæsthesia may serve a good purpose. If the convulsions are not promptly controlled, the uterus must be speedily emptied. This constitutes the most important method of dealing with eclampsia. Two lives are at stake, and by addressing ourselves assiduously to speedy delivery of the fœtus, we contribute in the largest manner to the conservation of both. Rapid dilatation, first with steel dilators if need be, then with manual stretching of the os and cervix, followed by the forceps, is the nearest approach to idealism—only rarely can the deep incision of Duhrssen be required. Cæsarean section should be reserved for extreme complications, as deformed pelvis, or to preserve the fœtus when the mother's condition is hopeless. Veratrum viride is dangerous, uncertain, and deceptive in action.

In eclampsia prior to term the aseptic bougie, introduced to the fundus and coiled within the vagina, may be employed to produce labor. Finally, to promote the elimination of toxic material, diuresis, catharsis and diaphoresis should not be forgotten; neither should the hot-air bath nor the hot pack be overlooked.—W. Warren Potter.

Picrotoxin in Ovarian Diseases.—The frequent occurrence of severe nervous symptoms coexisting with uterine and ovarian diseases is readily explained by the sympathetic nerve-supply to these organs. These cases are always embarrassing, and though sometimes found in young girls, are most frequently observed in middle-aged women who are approaching the menopause, at which time they increase in severity, continuing for a period of from two to six years with varying intensity. Flashes of heat, cold, creeping sweats, cold hands and feet, constipation, palpitation of the heart—all are more or less complained of. Further, patients are easily confused, and memory impaired; they have crying spells; avoid crowds and public places; are suspicious and brooding; flush when addressed; have a sense of impending calamity; and indeed are generally wretched.

Strychnine, iron, arsenic, black willow, black cohosh, corn silk, pulsatilla, black haw, and bromides, one and all have been recommended in conjunction with rest, attention to bowels, and proper hygienic surroundings, and often are effective; but for more severe cases, especially during the menopause, picrotoxin in one-sixtieth grain doses repeated three or four times a day affords the best results. The same dose may also be employed in like conditions accompanying uterine and ovarian disturbance in young girls. The drug acts by lessening the reflex excitability of the spinal cord, and seems also to have a tonic influence. I have never observed any untoward results.—Pagel, in *Medical Summary.*

Gout.—Take half an ounce of potassium iodide, dissolve in half a pint of methylated spirit, add one ounce of soap liniment, and one-half drachm each of oil of cajuput and oil of cloves. Soak a piece of lint in the mixture, wrap round the affected part, cover with a protective, and keep in place by a bandage. This acts as a powerful counter-irritant, and the inflammation usually subsides in from twelve to twenty-four hours. In addition, I not uncommonly give a drachm of colchicum wine with ten grains of iodide of potassium three times a day. These large doses of colchicum wine induce brisk purgation, sometimes accompanied by vomiting, but they speedily cut short the attack. This mode of treatment is especially useful in the case of robust, full-bodied men in active employment, to whom the loss of a day's work is a serious consideration. In sciatica, lumbago, and rheumatism affecting one joint, the local application of a liniment containing half an ounce of salicylate of sodium, half a drachm of oil of cajuput, fifteen minims of oil of eucalyptus, and half an ounce of soap liniment in six ounces of rectified spirit, affords prompt relief.—Murrel, in *The Lancet* (London).

Influence of Drugs on Excretion of Uric Acid.—After careful regulation of diet and preliminary examination of the urine the writer took each morning a powder of ten grains of sugar of milk carefully incorporated with one grain crude lycopodium spores, with the result the quantity of urine was slightly increased, its specific gravity unaltered, the amount of urea raised almost two grammes per day, and the amount of urates and uric acid increased one gramme per day. On doubling the dose no very decided difference was made.

Beginning with thirty-minim doses of fresh mother tincture of sulphur, and increasing to one hundred and fifty minims, gave a lessening of the amount of water passed, a very slight fall in the amount of urea, and a decided rise in the quantity of uric acid.

Eighty minims of tincture common nettle was found to so greatly stimulate the excretion of uric acid that ten drachms taken next day could not find a sufficient supply of deposited uric acid to maintain the standard.

Wine of colchicum lessened the quantity of urine and gave a very high output of uric acid.—WILKINSON, before the British Homœopathic Medical Society.

Hypnotism as a Therapeutic Agent.—In the organic diseases of the nervous system, in hæmorrhages, myelitis, etc., I have never found hypnotism giving any good results. In strong neuroses and in hysteria it has a wide field of application; all such manifestations are tractable and can be controlled thereby. In proportion as they are more recent, they are that much easier to control, and they are more distant from the ordinary type of hysterical attacks. In the hysterical localizations there is no pharmaceutical medicament that can take its place. In old established hysteria the hypnotizations should be continued with perseverance, varying the suggestion in every possible way.

In cases of epilepsy, both essential as well as Jacksonian, I have never seen any favorable results. In mental alienation, madness, imbecility, alcoholism, etc., I can give no opinion. In the neuropathic perturbations, palpitations of a nervous origin, insomnia, nocturnal incontinence of urine, headaches, neuralgias, etc., hypnotism often gives good results.—GUILLERMO PARRA, before the Pan-American Congress.

Colocynth.—This is a good many-sided medicament. If given in minute doses in colic, say one-tenth to one-half minim, repeated every thirty or sixty minutes, it acts promptly when there is pain with the sensation of boring or gnawing. It is often the remedy called for where the patient has several liquid stools in the morning only, and seldom needs to be given in more than one-drop doses, repeated every hour for several times, then every four to six hours. Colocynth frequently stops watery, semi-choleraic diarrhœa, which may not be painful but is often offensive; but one-tenth minim, every thirty minutes, is a dose sufficiently large. In acute dysentery, in some seasons, it is specific, especially if of a bilious variety. In many cases of cholera infantum, when the skin is of a dirty yellowish hue, the fever high, bowels very loose and offensive, it is called for in very broken doses.

In the colic of horses I have never known it to fail, and I have thereby saved many very valuable animals. I give ten- to thirty-drop doses, and repeat every hour.—JOSEPH ADOLPHUS.

Value of Calcium.—A recent epidemic of measles afforded me a fine opportunity to try the ameliorating, abortive and prophylactic powers of this drug. Its abortive properties in furuncle are pretty well established. Many children in the same family had the measles rendered mild and some failed to take it when put under the influence of this drug. In some cases of adults where the eruption was very dark, and typhoid symptoms present, by the use of one grain every two hours all the unpleasant symptoms were easily controlled and speedy convalescence occurred. I believe that scarlet fever and even small-pox can be rendered mild if not aborted by the early use of this remedy.—SILVERS, in *Medical World.*

Fracture of Coccyx.—This is a frequent result of falls in which the weight is thrown upon the buttocks, and is an injury frequently overlooked; the symptoms, being simply pain and tenderness, are generally disregarded by the patient. Displacements and deviations usually ensue. Many cases are followed by unusual secondary effects upon the system, of a severity totally out of keeping with the apparently trivial nature of the injury. These symptoms are ofttimes regarded by the patient as a manifestation of obscure spinal disease, and the worry and anxiety brought on from the self-made diagnosis results in various manifestations of general nervousness and hysteria. Excision of the bone is to be recommended.—*Omaha Clinic.*

Potassium vs. Sodium Iodiae.—The sodium salt is always preferable in all maladies of the respiratory tract and for rheumatic pains. The potassium salt is badly tolerated in many instances of hepatic disease, but is undeniably good when it can be borne. As a rule where patients do not tolerate iodide of potassium well, the employment of iodide of sodium prepares them for the potassium salt. The effect of the iodine in many patients can be had by employment of the sodium salt when the potassium is contraindicated owing to its depressant effect.—BRIQUET, in *Revue Internationale de Médecine et de Chirurgie.*

The Coal Tar Products.—These have been prescribed for almost every disease that flesh is heir to, and for a long time were depended upon to reduce and control high temperatures in every disease attended by pyrexia. While they will reduce the temperature of the body, such is at the expense of increased heat-waste and not by decrease of heat-production; thus the vitality of the patient is lowered sometimes to an alarming extent. Latterly these are more prescribed for headaches and less prescribed for fevers, and more in combination with other old and well tried remedies, such as quinine, caffeine and ammonia.—GRAHAM.

Belladonna in Bronchitis.—I have long regarded the mucous expectoration in bronchitis, whether viscid and vitreous or profuse and watery, as rather an increased secretion than an inflammatory product, and so employ tincture belladonna in ten-minim doses three times daily or oftener to check and to relieve incessant and troublesome cough. I also find it relieves the bronchitis produced by inhalation of ether, and will suggest it should be given to patients who, after aspiration, suffer from an abundant watery expectoration so profuse as to sometimes kill by suffocation.—RINGER, in *British Medical Journal.*

Oleander.—*Nerium oleander* acts directly upon the heart, but so far as known does not offer any advantages over other heart remedies, except it be in atheromatous conditions. It reduces blood-pressure, slows the heart's action, and regulates the pulse-beat. Where dyspnœa and œdema are present its diuretic effect tends to overcome these conditions; and the diuresis increases the solid constituents of the urine as well as the fluid. It is best given in small doses often repeated.—*Chicago Medical Times.*

Alleviation of Pain in Labor.—Bukoemski believes alleviating remedies do not retard labor; never do harm, and are sometimes of great service. When ether is used the pulse and respiration are unchanged; the labor is shortened; albumen is never seen in urine; uterine contractions are more powerful; involution is improved. Ether is a reliable and non-dangerous drug that does not require accurate dosage. Chloroform rather retards labor, but is not injurious to either mother or child. Ether deserves the preference, but both are good and reliable.—*Medical Press and Circular.*

Objections to Iodoform and Carbolic Acid.—It is not advisable to use iodoform or carbolic acid for the umbilical cord, or other local conditions requiring an antiseptic dressing in early infancy. Cases of severe poisoning and death, due to these drugs, are not uncommon. Iodoform, even without severe toxic symptoms, may cause erosions around the umbilicus, and should not be used in dressing the stump, nor in cases of circumcision, except perhaps for the first day in the case of the latter condition.—HOCHSINGER, in *American Journal of Obstetrics.*

Constipation in Children.—

℞ Sodium bicarbonate, 3 drachms.
Powdered rhubarb, 2 ounces.
Sulphate of sodium, 1 ounce.
Oil of peppermint, 20 minims.

One-half to a full teaspoonful before breakfast.

Castor oil heated and thoroughly rubbed over the abdomen will often act as effectually in children as if given internally.—*Louisville Medical Monthly.*

Atropine and Quinine.—The ear-buzzing and kindred phenomena which so frequently follow the administration of quinine may be to a large extent controlled by the simultaneous use of atropine in small doses. My experience has been limited to doses of from five to seven grains of quinine, so that it is impossible to state what influence the atropine would have when cinchona alkaloid is given in larger quantities.—AUBERT, in *Lyon Médical.*

The Turkish Bath.—Torpid skin, rheumatism, mental depression, sleeplessness, malaria, typhoid, gout, kidney trouble, congestions of the liver, spleen and bowels, biliousness, catarrh of stomach, gall-stones, colds, are indications for this form of bath. It is indicated

in engorgements, but is of doubtful utility where there is weak circulation, and may here do harm.—Smith, before the Southern Tri-State Medical Society.

Salol in Nephritis.—In two cases of nephritis the administration of salol in combination with bismuth was followed by suppression of urine—in one case death supervening, in the other very serious symptoms. I therefore consider it advisable to warn the profession of the possible danger of administering this drug for any purpose to patients suffering from nephritis.—Tyson.

Irritable Temper.—Irritability of temper in the young is often referable to valvular affections, and should lead to an examination of the heart. In the old it is often a manifestation of gout. In such cases, when the attack is felt coming on, twenty grains of bicarbonate and ten of bromide of potassium is apt to be of value.—T. Lauder Brunton.

Urinary Difficulties of Old Men.—Saw Palmetto is a remedy that should be better known, for it aids in cases where other drugs are of no avail. When an elderly man has trouble in voiding urine, and is compelled to use a catheter, give him five-drop doses of saw palmetto, fluid extract, and speedy relief will generally follow.—Jordan.

Therapy of Antipyretics.—Brouillette protests against the indiscriminate use of antipyretics in fever. Fever is nature's method for certain conditions. Nature's antipyretic, cold water, should be used for simple reduction of temperature. Quinine in large doses is a valuable antipyretic and also an antiperiodic.—*Southern Medical Record.*

Chapped Hands.—

Menthol, 1 part.
Salol, 2 parts
Olive oil, 2 parts.
Wool-fat, 60 parts.

Apply this ointment to the hands twice a day, night and morning.

—*The Practitioner* (London).

To Remove Powder Stains.—Apply a solution of corrosive sublimate (six grains to an ounce of water) by means of a quill to the entrance of each grain. This will cause suppuration around the powder grain, and by wiping with a cloth all will be brought out and no stain remain.—Hartman.

Acute Otitis Media Caused by Nasal Douche.—Burnett reports a case, and points out the errors in the treatment of the patient as follows: The use of the nasal douche to relieve cold in the head: Allowing the ear to ache for one week without performing paracentesis: Long-continued syringing, moppings, etc.—*The Laryngoscope.*

Cutaneous Irritation of Measles.—

℞ Lanolin, 1 ounce.
Vaselin, 3 drachms.
Castor oil, 2 minims.
Distilled water, 5 drachms.

Incorporate into an ointment and apply as required.

The Practitioner (London).

Muscular Rheumatism.—Rhus toxicodendron is a valuable remedy, given in cubic centimeter doses of fluid extract, three times daily after meals; it may be combined with potassium bromide and compound syrup of sarsaparilla. I have never witnessed any toxic effects therefrom.—Benedict, in *American Therapist.*

Liquid Dentifrice.—

℞ Salol, 25.00 grammes.
Saccharin, 0.04 gramme.
Oil peppermint, 5.00 grammes.
Oil cloves, 1.00 gramme.
Oil caraway, 0.50 gramme.
Rectified spirit to make one litre.

—*Scientific American.*

New Hæmostatic.—Sulphate of soda in small doses, say one grain or one and one-half grains every hour, will usually prove successful in grave capillary hæmorrhages, spontaneous or traumatic. It is not effective, however, if employed hypodermatically.—Revekedin.

Water in Therapeutics.—In fevers, diarrhœa, profuse perspiration and menstruation, the free ingestion of water is indicated. It increases hydrochloric acid and pepsin in the stomach, which has been rendered deficient in these conditions.—*Medical Summary.*

Fœtid Feet.—

℞ Distilled fennel oil, 1 pint.
Chloral hydrate, 35 grains.
Borax, 15 grains.

Wash the feet morning and night.

—*The Practitioner* (London).

Pharyngitis and Croup.—Excellent results are had from the administration of potassium bichromate in very minute doses. A convenient method is to dissolve one grain in two ounces of water, and administer in three-drop doses.—MILLICAN.

Asthma.—I must state that *Blatta orientalis* has worked wonders in asthma. A case that had never received any marked benefit from drugs before found *permanent* relief in a few hours after taking *Blatta.*—SPENCER.

Endometritis.—I think that impregnation is more likely to follow when the curette and tampon have been employed for the relief of endometritis, than after treatment by other methods.—BASHAM.

Hæmorrhoids.—Artault prescribes tincture of horse-chestnut in doses of from twenty to thirty drops, twice daily, in hæmorrhoids, and claims it is a specific.—*New York Polyclinic.*

Passiflora.—The tincture of Maypop in from thirty- to sixty-minim doses often proves an admirable sedative for nervous erethism and tachycardia of the menopause.

Furunculosis.—Where there is a persistent crop of boils Cantrell advises the administration of arsenic sulphide $\frac{1}{100}$ to $\frac{1}{25}$ grain three times daily after meals.

Warts.—If you have a patient with huge crops of warts put him on *Ferrum picricum.* The warts will speedily disappear.—*Homœopathic Recorder.*

Tonsillitis.—In this malady sodium salicylate pushed to its full physiological activity proves an excellent remedy.—*Louisville Medical Monthly.*

Granular Lids.—Sulphate of copper applied to granular lids was a common practice of Egyptian practitioners 1500 years B.C.

Enuresis.—The most valuable remedy is strychnine, in conjunction with regulation of habits and diet.

Sciatica.—Give wine and colchicum *root*, five to ten minims, three times daily.

Medical Progress.

POST MORTEM EVIDENCE OF DISEASE ANTECEDENT TO ALCOHOLISM.—On the afternoon of January 16th, 1897, I was called to a married woman, aged fifty-four, a street-crossing sweeper. She was stiff (able to move only her head), cold and semi-comatose, with a temperature of 96° F. The husband stated that she had been drunk with rum every night for the last fifteen years; a neighbor adding that she had not washed herself since September last. She had eaten nothing for weeks, would drink all the rum she could get, and had been semi-delirious for three days, having become worse during the last twelve hours. She died in thirty-eight hours after I saw her, without having recovered consciousness. On a post-mortem examination two days after death the following appearances were noted:

Body measured five feet six inches in length, was dirty and covered with vermin, emaciated, with an absence of fat. There were three large bed-sores, two over buttocks and one over sacrum.

Pericardium thin and containing no fluid; heart valves competent, but structure of heart muscle pale; one and a half ounces fluid dark blood, the color of tar, in right ventricle; venous system congested with dark blood; heart walls thinned; organ weighed eight and a half ounces (half an ounce under the average weight in adult females). General congestion of both lungs; general pleural adhesions of old standing, thicker and more extensive in right lung; right lung, weight fifteen ounces (two ounces under average); left, eleven and a half ounces (three and a half ounces under). Old congestive patches on inner walls of stomach, and general thinning of walls of latter. Peritoneum contained about half a pint of straw-colored fluid; mesenteric glands in region of pancreas, some with cheesy nodules a quarter of an inch in diameter, enlarged and indurated; adhesion of colon to liver and diaphragm, and of diaphragm to liver. Nutmeg liver, thirty ounces (six ounces under weight). Spleen, four ounces (one ounce under weight). The kidneys pale, capsule adherent; right, four and a half ounces (fully three-quarters of an ounce over weight); left, five and a half ounces (half ounce over). Dura mater closely adherent to skull and pia mater to cerebrum, injected, opaque, opacity most marked over vertex bridging over the sulci; vessels atheromatous. Brain showed bleeding congestive points on section, with scattered tubercles except on the base; lateral

ventricles full of reddish-colored serum. Brain weighed four ounces (three ounces under average).

Verdict of death from tuberculosis accelerated by alcoholic poisoning was returned by the coroner's jury.

The examination after death in this case revealed what I have frequently observed in clinical practice. The tubercle was the original departure from health, the alcoholism following. Though it is open to question whether the alcoholism did not, here, arrest in some degree the advance of tubercle (which was the alleged *raison d'être* of the now obsolete profuse prescription of whiskey in the treatment of phthisis some thirty-five years ago), it was manifest that this poor woman's chronic drunkenness was the issue of a non-alcoholic malady. Clinically, I have found tubercle to have been a factor predisposing to the disease of inebriety in some four per cent. of cases of narcomania. It is not a craving for alcoholic liquors, but rather for intoxication, a true intoxication mania, which is set up presumably from some abnormal brain condition induced by the action of tubercle on the cerebro-spinal centre. The tuberculous brain unrest, an irritant and dominant unrest, though the consumptive may hate the very taste and sight of intoxicants, is an overpowering morbid impulse to secure an immediate, if evanescent, relief from intolerable agony.—Norman Kerr, in *Medical Press and Circular*.

Globus Hystericus.—This is a disease without pathology or histology; it is an affection of no particular part of the human body, and yet all parts are involved; no one has ever been known to die of it, and yet it is worse than death to experience; it is essentially a woman's disease, yet men of weak virile powers sometimes have it. In the first attack the patient is afraid she will die, and so are the attendants; in the second attack she is afraid she won't die, and the attendants are afraid she will; in the third the patient is afraid she won't die, and so are the attendants.—It is one of those times when the Old Man with his scythe would be a welcome visitor.

A council of doctors has been had, the relatives to the third generation have been assembled, the preacher is there with his prayer-book, the room smells of all sorts of drugs, a soft mellow light is admitted to the room, children are whispering in the back kitchen, and shuddering with expectation; silence has fallen upon the whole company. Now is the time the patient ought to die, and it would certainly be permissible and good-natured if she would do so. But she don't. Instead she lies, panting for breath, and in a few hours gets up and eats a meal that would make a tramp turn pale. The patient is ashamed, the friends are mystified, the doctor angry, the preacher is disappointed. The children begin to play again, light is admitted to the house once more, birds begin to sing, all Nature goes on again as if nothing had happened.

This pleasant state of things continues for about two days, when another attack makes its appearance. It starts somewhere below the navel, spreads steadily like a great balloon, inducing a suffocating, sinking sensation, gradually extending through the thorax; it finally lodges in the hollow spot just above the top of the breast bone, where it proceeds to choke the patient in a most aggravating way,—there are no external symptoms of choking, but it is just as hard to bear. She can and yet she cannot breathe; she is dying yet she cannot die. But this time there is not an ante-mortem funeral,—only the doctor is sent for. No one pays the poor sufferer any attention; she is only "having another hysteric." And there the poor creature lies, gasping, shivering, trembling, throbbing, shuddering and doing a thousand things that no speech or language can portray. Death would be "a picnic," strangulation a recreation, suffocation a holiday, asphyxiation an amusement, in comparison to this *séance* with globus hystericus.

The poor, quivering, frightened, panting creature, how I pity her—the cold beads of sweat on the brow; the pallid, ashen lips; the contracted pupil; the goose-pimples,—all attest to terrible suffering that cannot be explained. It is not pain; it is not an ache, or a smart, or prick, or stab. It is just one all-round, omnipresent, unpronounceable, effervescent misery that beggars language and defies description.—Carr, in *Cincinnati Lancet-Clinic*.

Tapping Extraordinary.—The propriety of tapping the pericardium has often been discussed, and opinions are usually about evenly divided thereon, which means that the benefit to the patient is open to question. On the other hand, it is not fair to debit the operation with the entire responsibility for a high subsequent mortality, seeing that the pathological conditions which pave the way to, or are associated with, pericardial effusion are of themselves always grave, and often fatal *per se*. In the latter event, paracentesis of the pericardium is of the nature of a palliative procedure, which cannot save and may relieve. A

case of hæmo-pericardium recently brought before one of the medical societies, and reported in our columns, belongs to a somewhat different category, for no one, we surmise, would call into question the urgent and imperative necessity of averting a danger too obvious not to be impressive. A young man engaged in playing football, an occupation possibly as dangerous as armed participation in an African predatory expedition, received a kick over the region of the sternum which doubled him up, but he nevertheless managed to go on playing for twenty minutes or so, when, feeling faint, he conveyed himself home, where he forthwith fell into a state of collapse. He presented the curious phenomenon that the heart appeared to be beating twice as fast as the pulse. Gradually the area of heart dulness extended, while *pari passu* the breast sounds on the left side became fainter and fainter until they became inaudible. Then, even the heart sounds faded into silence, and the patient's condition became one of extreme gravity, justifying the most gloomy prognosis. At this juncture an enterprising surgeon cut down on to the pericardium and incised it, giving exit in the course of two or three hours to six pints of blood, so pure as to clot firmly within the basin into which it was poured. Not the least surprising part of the case is the fact that the patient recovered, so to speak, "without turning a hair," and was produced by the operator at the meeting to vouch for his veracity. He no longer cherishes any particular liking to football as a pastime, but, as far as one could judge from appearances, he was fully able to join in the fray once more.—*Medical Press and Circular.*

Heredity and Insanity in Idiocy.—Physical characteristics, those distinguishing the human species for instance, are transmissible by inheritance:

Knowledge, genius, culture, being dependent on the influences of education and environment on the individual, are not transmissible; but what may be termed mental receptivity and degrees of cerebral evolution and development may be inherited.—Psychic qualities are not necessarily an inheritance, as they require favorable surroundings and circumstances for their growth and development:

Insanity, as a disease, is not transmissible by inheritance, but may be acquired or evolved, especially where a neurotic heredity exists as a basis:

A neurotic predisposition is transmissible by inheritance, but there is no absolute rule that it will be transmitted in every case:

The inbreeding of neurotic temperaments is most conducive to the creation of a neurotic heredity:

Idiocy and imbecility may be the result of certain defects having origin in consanguineous marriages, in pre-natal conditions, accidents, arrested cerebral development, infantile meningitis, tuberculosis, and lack of potency on the part of one or both parents from unexplained causes.

Premature closure of the sutures in the cranial vault has also been recognized as a cause of imbecility, and for the relief of this condition linear craniotomy has been proposed and performed, without, however, a gratifying amount of success.

Neurotic instability may be transmitted by inheritance, yet it is capable of exerting only a potential influence in the later development of mental disorder, which may be evoked by social condition, environment, or pathological changes in the cerebral cortex. Imbecility and idiocy may, however, result from defective cerebral development, or pre-natal disease.—Chapin, in *Medical Review.*

Is Spitting a Crime?—A doctor in Germany says that people should swallow their sputum rather than expectorate in the street. Immediately the echo Health Board Doctor wants laws passed to prevent people from spitting.

Why do we expectorate? Because the air passages are filled with dead and corrupt matter which the system seeks to eliminate. Nature knows no laws but her own. She directs the individual to expectorate, while the profession who has charge of his physical welfare wants to force him to transfer this dead matter to the stomach to deprave the gastric juice, and further harm the system.

And why do the health boards want to prevent people from spitting? Simply because of the unfounded assertion that the dried sputum of consumption is the medium of contagion. If there were any truth in the germ theory of consumption, which there is not, there are no better antiseptics than sunlight and fresh air. They will render any amount of sputum innocuous. In fact, if we could insure each individual cubic space sufficient to live in properly, consumption would probably vanish from the earth.

If we argue from the standpoint that spitting is an uncleanly, disreputable practice, defiling floors and offensive to the eye, then street-cars, public halls and the like should provide cuspidors for the use of patrons. But let us know what we are doing and why.

We believe that a majority of physicians

who constitute our health boards are able and efficient men, but there are usually one or two cuckoos among them, and the moment some radical foreign crank throws out a suggestion they want it stamped with the authority of the law.

The people are growing tired of this. Health boards have been a butt of ridicule to the secular press for some time. We believe they have a legitimate mission, and that it is an office which should be filled by members of the profession; but it is not a political body, and the people do not want to be so tied up with laws that they cannot sneeze, spit, eat, drink nor sleep *freely*.—*Medical Brief.*

Early Appearance of Scirrhus of the Mamma.—The following case, owing to the age of the patient and consequent difficulty of the diagnosis, appears to be worth recording: A single woman, aged twenty-two years, on July 23d complained of a lump in her right breast. She was an anæmic, sallow-skinned, fairly well developed woman; previous health good; no history of any injury; parents denied the existence of malignant disease in any branch of the family. She stated that the lump had existed for six months, and had of late given her a good deal of pain. Fearing its nature she had concealed the fact of its existence. It presented a hard swelling above and on the outer side of the right nipple. The skin was freely movable, but the nipple was deeply retracted. There appeared to be no adhesion to the deeper structures. No enlarged glands could be detected in the axillæ or above the clavicle. The diagnosis of malignant disease was made. The following day, on making an incision into the tumor and noting its suspicious appearance, with the assistance of Mr. Warters I removed the breast. There was slight adhesion to the fascia of the pectorales; accordingly that portion beneath the tumor was removed. The incision, dressed with dry boracic lint and covered with double cyanide gauze and a bandage, on the fourth day presented no inflammatory signs; the silk sutures were removed and on the ninth day union was sound.—Henry E. Haycock, in *The Lancet.*

Osteomyelitis.—Deep, rapidly increasing pain in an arm or leg, accompanied by swelling without redness or fluctuation, together with high fever or chills, is the typical picture of acute osteomyelitis. The disease at this stage, which may be a few days or only a few hours from its onset, is one of the emergencies of surgery. The diagnosis must be carefully but fearlessly made and the treatment speedily instituted, for delay may mean death or life-long deformity. No temporizing should be permitted once the diagnosis is clear, but free incision to the bone, with chiseling into its marrow, should be at once performed. As a rule pus will not be found in these early cases, but a periosteum which is easily peeled from the bone and a cortex which bleeds but little. Immediate relief of symptoms will show that the diagnosis was not amiss. The frequency of necrosis of bone would be greatly reduced if these timely operations were more common. Unfortunately, the procrastinating poultice or the ice-bag too often is resorted to, and in the meantime local tissue destruction and general sepsis may compromise the case. Remember any bone may be the seat of acute osteomyelitis, although it is oftenest encountered in the long bones.—*International Journal of Surgery.*

Drug Eruptions.—Fordyce reports cases of the nodular form, and of the rupia-like eruptions following the ingestion of iodide of potassium; also a case of scarlatiniform erythema following the application of mercurial ointment to the pubic region; and, lastly, an erythematous eruption from the internal use of boric acid in a case of cystitis. In the nodular iodide eruption the lesions became larger than a man's fist, but did not suppurate. In the scarlatiniform eruption, following the application of mercurial ointment to the pubis, the eruption was universal and diffuse and itched slightly; there was no sore throat and no elevation of temperature; within a week there was free desquamation. Fordyce also observed another case similarly produced, in which a diffuse erythema extended as high as the nipple line in front and behind, and as low as the knees, and on the inner aspect of the arms, whilst scattered patches of multiform erythema existed on the thorax, arms, and legs. The boric acid eruption followed the ingestion of thirty grains given daily for a month; the erythema was a multiform one of the trunk and other extremities, and was associated with conjunctivitis, photophobia, and very marked œdema of the upper lids.—*British Journal of Dermatology.*

Foreign Bodies in the Stomach.—A woman, thirty-two years old, during an attack of mental aberration swallowed a num-

ber of articles, such as spoons, forks, crochet needles, hairpins, keys, etc., some of which passed by the bowel. When the abdomen was opened an abscess cavity was found, having for its posterior boundary the anterior wall of the stomach. Investigation showed that this cavity had resulted from the perforation of the stomach by a crochet needle. The stomach was next opened in an uninvolved portion, and from its cavity were taken a key, two teaspoons, a fork, two pieces of wire, two hairpins, twelve pieces of glass, a window hook, a steel pen, nine sewing-needles, a piece of graphite, a shoe button, a grape seed, two beads, and a crochet needle. The interior of the stomach was carefully irrigated with sterile salt solution, and the wound in its wall closed by a double row of sutures. The abdominal wound was packed with gauze, and, in the absence of complications, was closed after several days. For five days the patient was sustained by nutrient enemata; afterward the administration of food by the mouth was begun. Recovery was perfect, and the woman gained considerably in weight after the operation.—*Deutsche Medicinische Wochenschrift.*

Carcinoma of Rectum in Boy of Thirteen Years.—This lad, thirteen years old, presented in the rectum, just below the promontory of the sacrum, a tongue-shaped tumor, attached posteriorly, and ulcerated upon its inner surface. A small piece removed presented the arrangement of a cylinder-cell proliferation, and on account of the age of the patient a tentative diagnosis of papillary adenoma was made. Radical operation, however, was advised. The tumor had been in process of development for six months. The rectum was resected for a distance of two-and a-half inches in conjunction with osteoplastic division of the fourth sacral vertebra. The carcinomatous ulceration involved the rectum for a distance of an inch and a half, and extended through the muscular into the serous coat. All of the involved structures were removed, but the circular suture of the intestine failed to hold securely, so that a small fæcal fistula resulted.—Czerny, in *Münchener Medicinische Wochenschrift.*

Latent Aneurysm Aorta.—This is the presence of a systolic sound in the brachial artery, synchronous with the cardiac systole, and sometimes accompanied by an arterial murmur. When heard, and aortic regurgitation can be excluded, a positive diagnosis of aneurysm can be made, even in the absence of all other signs or symptoms. The sound is due to rapid tension of the walls of the only partially filled artery, due to the sudden impact of blood at the heart's systole. In pure aortic regurgitation the sign is always present; in two out of six cases of aneurysm the diagnosis was made from this sign alone, four months before the appearance of the recognized physical signs; five were intrathoracic aneurysms, and one abdominal.—Glasgow, in *New York Medical Journal.*

Enlarged Prostate.—A man aged between fifty and sixty years, afflicted with enlarged prostate gland and requiring the use of the catheter before any urine could be drawn off, recently became afflicted with acute orchitis of one testicle, the orchitis being probably caused by the irritation of the catheter, as great difficulty was experienced in passing it. Almost immediately after the onset of the orchitis he could pass urine more or less freely, an act he had not performed for over a year, and the whole bladder symptoms underwent great improvement—an improvement that has continued since the orchitis got better.—Gibson.

Malignant Lymphoma and Tuberculosis.—There are combinations of malignant lymphoma with tuberculosis of the glands or other structures, yet this cannot be attributed to any ætiological connection. Cases of multiple lymphomata often occur in which the clinical differential diagnosis between malignant and tuberculous lymphoma can scarcely be made; there is even a frequent tuberculous disease of the glands, which runs its entire course under the semblance of malignant lymphoma, without softening or breaking up, which is often impossible to recognize even on section.—*American Medico-Surgical Bulletin.*

Malignant Disease of Tonsil.—The diagnosis must be made early if surgical treatment is to be of any avail. The presence of a recently developed unilateral non-inflammatory new formation in the tonsil of an adult past middle life suggests the probability of malignant disease; and if the tumor is hard, dense, and of rapid growth, the presumption is strengthened.—Newman.

The Medical Age.

Vol. XV. DETROIT, APRIL 10th, 1897. No. 7.

Original Articles.

ORIGIN OF THE VERTEBRATES.

BY STUART JENKINS.

It is with extreme reluctance that the writer takes up this subject at this time, inasmuch as it is impossible within the narrow limits afforded to handle it finally or even effectively. And yet so much of the detail work has been done already by innumerable workers in the wide field of scientific research that it seems likely the mere statement of a working hypothesis will gather up the now scattered strands of confirmation, and spin them into a conclusive whole. I shall therefore content myself with treating the matter broadly, advancing only some of the more striking points which seem to give color of probability to the explanation which I propose to offer of the origin and development of the vertebrate organism.

It is beyond question that there is a large number of thinking men who sympathize with Lord Salisbury's now celebrated utterance at the Oxford meeting of the British Association, and no matter what scientific bigots may say to the contrary—for Science unfortunately has its bigots as well as superstitions—the feeling is gaining ground that Darwin has not said the last word in regard to evolution, while some few of acknowledged standing refuse adherence to his views altogether. The one element in Darwinism which has enabled it to hold the field so long is the Doctrine of Descent, the very obvious truth of which appeals to every investigator; but nothing is more astonishing than the amount of perverted ingenuity which has been exercised in order to make the theory of Natural Selection fit and explain any and every modification of structure. In sober truth it may fairly be said that Darwinism, instead of eliminating the agency of miracles from our modern cosmogony, has conferred on circumstance the prescience and power of a dozen deities; and when natural selection fails, illimitable time is called in to the aid of the evolutionist, and adverse criticism is silenced by the weight of eternity. It was this question of time which first started the writer on an independent line of investigation, and with years the conviction has become strengthened that all such estimates as those of Lyell and Croll are exaggerated and untenable.

The evolution of species, according to Darwin, was brought about by the operation of three forces: Atavism, or Heredity; "Spontaneous Variation;" and, acting on these, the Conditions of Existence. Of these the last is understood—or supposed to be understood—but of the causes which gave rise to the other two we are absolutely ignorant, although their existence and influence are beyond question. Another obscure point, and one that has been made the most of by the opponents of evolution, is the fact that crosses between hybrids are in ninety-nine cases out of a hundred absolutely without result. Speaking of this twenty years ago Huxley said: "This is a very extraordinary circumstance; one does not see why it should be." Those words stand for the fact to-day. Of the gaps which occur in the chain of descent the most obvious and at the same time the most perplexing is that which separates the vertebrates from the lower forms of life. An attempt has been made to fill this gap with the Ascidians, the larvæ of which exhibit an axial structure bearing a certain resemblance to a vertebrate notochord; but the analogy has been hotly disputed, and is certainly not definitely established.

Now there is only one theory which seems to adequately explain these hitherto obscure points, and it is this: that the vertebrate

organism, instead of being a single organism which has been evolved from a simple to its present highly complex form by a gradual and cumulative differentiation, is in fact a compound made up of two distinct organisms constantly associated. In other words, that the divergence of the vertebrates from the lower type was caused by the parasitic implantation of one organism of the ganglionic type upon another, the implanted organism giving rise to the cerebro-spinal nerve system and internal skeleton. More than this, I am convinced that the ganglionic type is itself a compound, the ganglions being parasitic on a simple cellular matrix.

Parasitism is a very curious and widespread fact, which is not by any means thoroughly investigated or understood. In its various developments it gives rise to some of the most extraordinary phenomena in the organic world. Indeed, in view of the already ascertained facts it is impossible to determine the modifications to which it might lead. We have everything, from the association of simple "messmates" to the ichneumon which devours, organ after organ, the caterpillar which serves the latter as a nurse, and which is at last eaten up by it entirely. But there are many cases of constant association where the two organisms react on each other so as to produce modifications in development, but where the parasite stops short of the absolute destruction of its matrix. Some cases of association are so constant and complete that it is only recently they have been detected at all. A well known instance is the lichen. Perhaps some of the most extraordinary modifications are exhibited by the Sacculina, to which I will refer again. One point is clearly established—that a tolerably complex organization is no bar to an animal's becoming permanently parasitic, but where this occurs the larvæ in a large majority of cases enjoy a short period of free movement before they become fixed in their appropriate matrices.

There is very strong evidence as to the identity of the organisms which go to make up the compound called the Vertebrate, but I will defer consideration thereof to a future article, contenting myself with indicating here the way in which the theory of Parasitism seems to throw light upon the dark places of evolution. Taking first the question of infertility between species, let us assume that in the process of vertebrate reproduction* the cerebro-spinal nerve animal supplies the male element and the ganglionic matrix the female element; the conditions necessary for such reproduction must conform to the laws which are known to govern parasitic growth.

There is no question that the product of nutrition varies in different animals. This seems to be indicated by the difference in the size and character of the blood-corpuscles, but even more clearly by the fact the blood of an eel injected into the veins of a dog is as instantly fatal as the bite of a rattlesnake. Now it is clear that if the nutrition furnished

---

*I return to this immediately, but there is a curious point I wish to note in passing. It is now held that impregnation consists essentially in the fusion of the male cell and the female cell; that in this act the protoplasm of the two cells as well as their nuclei coalesce; and that the use of the male element is to confer an added vitality on the ovum, which is potentially capable of developing by itself into a fresh individual. Further than this the concurrent testimony of almost all observers tends to show that only one spermatozoön is required for the purpose. On the other hand the observations of Fol and Hertwig indicate that where more than one spermatozoön enters the ovum, and there are consequently several male pronuclei, the segmentation is irregular and the resulting larva a monstrosity. Even Selenka, whose results differ somewhat from this, concludes that normal development cannot occur when more than one male pronucleus fuses with the female pronucleus, and holds that where he has observed such normal development after the entrance of more than one spermatozoön, the majority of male pronuclei become absorbed. We have here a contradiction. If the male element fuses with the female element, losing thereby its identity and adding only an increment of vitality to the compound, the entrance of two or more spermatozoa could only result in a larger and more vigorous germ. It is inconceivable that the result should be a monstrosity. The fact that it is so would seem to indicate that the fusion is not as complete as supposed, and the assumption in the text at once affords a rational explanation of the growth of monstrosities, since, if the male element is in reality the nerve germ, a multiple impregnation, where the spermatozoa survived, could only result in the overcrowding of the matrix and an unnatural demand on its powers of nutrition, leading inevitably to the production of a compound of aborted organisms instead of the normal individual.

by the cells of the matrix is not sufficiently elaborated, or is too highly so, the cerebro-spinal germ will fall on uncongenial ground, and either fail to attach itself or die for want of its appropriate food. Even when, as in the case of the mule, the first cross is productive, the cerebro-spinal parasite is so far aborted that it never develops the reproductive function, and the male mule is deficient. This is not only a simple but an adequate explanation. In the gradual evolution of the complicated nutritive system of the vertebrates the whole cell structure of the animal has participated step by step, reacting in its turn on the nerve animal, which, having become accustomed to an extremely artificial food and having developed an equally extreme and artificial sensibility, would languish under the slightest variation (as we unfortunately know it does), and in the embryonic state die outright. We find that the very same thing happens in the case of recognized parasites, the germs of which never develop unless they reach their proper matrix; which can only be accounted for on the supposition that different animals furnish different qualities of food, and that the assimilative apparatus of the parasite is so delicately adjusted that it cannot become omnivorous. We see from this that the establishment of a species is determined by two things: The occurrence of a state of equilibrium between the contending forces of the parasite and its matrix, caused by a permanent modification of the former: By a sufficient divergence of the system of nutrition to prevent recrossing with the original stock. And by this I do not mean a modification of the digestive organs, but of their *product*, a subtle chemical difference—or perhaps it would be better to call it a dynamic difference—which like isomerism defies analysis. The existence of opposing forces in the vertebrate organism was clearly pointed out by Huxley. Referring to heredity he said:

> This Atavism which I shall speak of is, as I said before, one of the most marked and striking tendencies of organic beings; but side by side with this hereditary tendency there is an equally distinct and remarkable tendency to variation. The tendency to reproduce the original stock has, as it were, its limits, and side by side with it there is a tendency to vary in certain directions, *as if there were two opposing powers working upon the organic being*, one tending to take it in a straight line, and the other tending to make it diverge from that straight line, first to one side and then to the other.

What clearer explanation of this fact could be found than in the assumption that the organism is a compound made up of two distinct and to a certain extent antagonistic individuals, the one encroaching, the other resisting, giving rise to perpetual oscillations, with here and there points of equilibrium, which however were always more or less unstable, and likely at any time to break out into variations. We get, too, a simple explanation of the "unity of plan" and "evidence of design" which have figured so largely in the polemics of evolution. For whatever the nature of the matrix—and I am not prepared to assert that it was in every case the same*—we have the same parasite as the molding and dominant factor, declaring in any and every combination its undoubted affinity.

Reproduction is probably the most inscrutable problem in the organic world. Our wonder at its complexity is only equaled by the stubbornness with which it has resisted all efforts to bring it within reasonable range of the comprehension. It is all very well to point to the fission of an amœbic cell

---

*There is a wide field for speculation here. If we assume a number of implantations in a variety of matrices we get a very simple explanation of the origin of genera, and one which seems to meet the case fully. There is no good ground for believing that the implantation occurred in one individual only. The geological record shows that the nerve parasite existed as an independent organism in countless numbers during the period immediately preceding the appearance of the Vertebrates, consequently the opportunities for such an implantation were correspondingly numerous. It must also be borne in mind that the divergence in the products of nutrition at this early period must have been very slight, and it is conceivable that there might be a large variety of forms in which the nutrition was almost if not quite identical. When once the implantation had occurred, however, the *internal excretion* of waste products by the embedded parasite would give rise to a series of chemical reactions in the tissue of the matrix which would tend towards a rapid divergence and the ultimate establishment of species. It seems probable that there will have to be a considerable readjustment of our present classifications, since affinities now unrecognized will assuredly crop up, while some of those at present claimed will prove to be erroneous.

and declare, as some evolutionists do, that in it we have both the basis and explanation of the whole operation, the highest and most complex having been "evolved" from the lowest and most simple. This may be a statement of fact, but previous attempts at demonstration have not succeeded in placing it beyond the reach of controversy. We may believe with the embryologist that the growth of the germ *in utero* shadows forth the development of the organism in time, and by analysis we may arrive at the operation of three forces, viz., spontaneous variation, heredity, and natural selection; but inasmuch as two of these forces are unknown quantities, we are no nearer to a knowledge of the *cause* which first started living matter on its path of development.

The further back we go in the record the less satisfactory does natural selection become as a motive power in the evolution of the organism. When living beings were composed wholly of protoplasmic cells, either single or aggregated, absorbing nourishment from the medium in which they lived, and existing under conditions the least liable to fluctuate—*i.e.*, in the sea—the variety of influences grouped under the head of natural selection were inoperative. The conditions under which life was maintained were the very conditions under which it was called into existence, and were therefore the most favorable possible; enemies to prey upon and exterminate there were none, because the source of nutrition was the same in all cases. Whence then came the influence that raised the first organisms above the dead level of their companions? The answer to this is, of course, that it was due to spontaneous variation, which as Huxley has pointed out amounts to the same thing as saying we don't know. Then again the force which we call spontaneous variation is a purely empirical deduction based on observation of the higher organisms, in which its existence is beyond question. But are we justified in believing that it holds good in the case of the primitive cell, or cell aggregation? Investigation so far has not proved that we are. It may be claimed that embryology indicates it, but the phenomena of embryonic growth are susceptible of an entirely different explanation.

When we turn to the lowest known form of life in search of enlightenment, we are met at once with a difficulty. Modern research has discovered in the depths of the sea a form of life which is the simplest conceivable —nothing in fact but an animated jelly. The existence of this protoplasm may be accounted for in two ways: either living matter is still being evolved from inorganic materials, or else this particular form of it has remained unchanged since the dawn of life. If we accept the first assumption, which is purely hypothetical, we must admit that the same conditions which called life into being are still in existence, and consequently there has been no such profound change of environment in the case of pelagic forms of life as would be necessary to produce the profound modifications which they exhibit. If we accept the second assumption, it follows as a matter of course, either that the change of environment has not been sufficient to affect the most primitive forms of life, or else that these forms are so stable as to resist external influences. In the one case we eliminate the operation of external forces, in the other the existence of spontaneous variation. Now geology proves that the conditions of life in the sea *have* changed, and it is admitted that natural selection cannot act without the aid of spontaneous variation, so that the conclusion is forced upon us that, in the case of pelagic forms, neither natural selection nor spontaneous variation had anything to do with the first changes in living matter.

The one power of varying which can with certainty be demonstrated as belonging to the protoplasmic cell is a certain adaptability, which enables it to draw its nutrition from varying sources of supply. This adaptability is governed entirely by the quantity and nature of the *foreign* matter absorbed along with the constituents of protoplasm. If this foreign matter is of an innocuous character and such as can be cast off again without difficulty, the organisms will assimilate and excrete it without injury; if, on the other hand, it is of a kind to set going chemical reactions inimical to the organism, the latter will die. The foreign matter may be converted into a new form before it is excreted; it may even come to be a help to the

organism in extracting from the source of its nutrition the constituents of protoplasm, through the chemical reactions which it sets up; but in no case can it be regarded as essential to the maintenance of the most primitive form of living matter, which, like the embryo, lives directly on the elements of which it is composed. Nutrition in the simple cell is really a phase of chemical affinity; its distinguishing characteristics are the limitations imposed upon it, the intangible fineness of the shades of difference which mark the products of the operation, and the complicated nature of the secondary reactions. Besides these there is a well marked preference for an unvarying source of supply, and a certain resistance to a change of diet, if such a word can be used in this connection. This resistance will in all cases tend to maintain the stability of the organism, and can only be overcome by a compulsory transference, accidental or otherwise, into a new environment. If the transition is too abrupt the organism will die; if not it will gradually adapt itself to a new chain of chemical processes. But in no case will the change be other than chemical. The protoplasmic cell remains the protoplasmic cell; the variation consists in an impalpable difference in the quality of the protoplasm. The almost infinite refinement of which this living matter seems capable constitutes the real mystery of vital action, and perhaps not the least curious part of it is that to produce this refinement the matter requires to be elaborated and re-elaborated by vital force.

Now if we consider the matter carefully there are only three, or at most four, accidents which could compel the first organisms to adopt a new method of nutrition: (1) They might be hoisted out of the sea by an upheaval of the bottom; (2) they might be forced to adopt a parasitic life; (3) they might be silted over with a layer of mud; (4) the chemical constitution of the sea-water might become altered. In the first case, if the organisms were lifted high and dry they would evaporate and die; but if they fell on a low, moist botton they would probably live and draw their nourishment from the only available source of supply — the moist earth on which they lay. The change would not be very abrupt, because the earth would be saturated with sea-water; but by and by the water would become impregnated with the soluble constituents of the soil, which would be drawn in by the organism and give rise to new chemical reactions. That these reactions were not fatal to the organism the existence of vegetable life proves. The change of environment, however, led to a much more important modification. As the organism no longer lived in a fluid medium the excretory substances were no longer dissolved and carried away, but were deposited throughout and around the cells, thus giving rise to the phenomena of vegetable growth. In the second case the Parasitism would involve the absorption of no new foreign substances, and would give rise to no new chemical reactions. The parasite would simply steal from its matrix the same quality of protoplasm which it would, under normal conditions, have elaborated for itself; but in re-elaborating this food it would acquire a certain chemical refinement which would differentiate it entirely from the cells of its matrix. The change in this instance would not be nearly as abrupt as in the case of upheaval, and the chance of survival would therefore be very much greater. In the third case, if the organism became buried very deeply it would probably die. If the layer of mud was thin it would soon reach the sea again, hoisted by its own excretion. But in any case the change of nutrition would be very slight, if any, because the soluble matter would be extracted from the sediment while it was settling. The fourth case may be rejected as improbable. There is nothing to show that sea-water has undergone any radical change. The alterations have rather been of proportion than of element.

Structural modification is the characteristic of cell aggregation, not of the simple cell. In its most rudimentary form it is purely external, and seems to present two well-defined types—the massed or roughly globular, which in the first instance must have been invariably shell-coated; and the extended, filamentary, or branching, which was naked. In the simple cell aggregation the two types are never united in the same individual. This outward divergence of form is of course due to mechanical causes, but it is not obvious at first sight why it should be. It is easy to

understand how an organism would become naked after the power of locomotion had been acquired, because the movement to and fro would leave excretory matters behind; but this does not apply to a stationary organism. The explanation seems to be this: the massed, shell-coated organisms lived on the bottom in *still* water, while the long, branching, naked organisms lived in *running* water, probably some ocean current like the Gulf Stream. This running water would carry away all excretory matters, and the drag of it would pull the organism out into its slender form. It would also bear off the germ cells cast loose, and finally deposit them on the bottom, where they would in some cases light in the mouths of the other type, there to commence a parasitic existence, and give rise to the evolution of a nervous system. The evolution of a nervous system is now attributed to a gradual process of differentiation. Luys, in his work on "The Brain and Its Functions," states that at first the sensibility was diffused over the whole organism, but that by and by there grew up a division of labor amongst the cells, and that some became nerve cells, and some muscle cells, and so on, until the whole complex organism was evolved. If we accept that explanation it means one of two things: either the cells deliberately divided the work amongst themselves, which is of course absurd; or else, owing to some inherent property, they were compelled to differentiate along certain definite lines—that is to say, we bestow on the cell a self-creative energy which lifts it at once beyond the influences of second causes into the region of the supernatural. Between such an explanation and that offered by the theory of Parasitism the contrast is too obvious to need more than mention. The implantation of one simple organism of a fixed type upon another affords an explanation at once rational and direct.

With the evolution of a nerve system we touch on the border-land of the reproductive mystery. Cell multiplication, although not entirely bereft of obscurity, is so far obvious that we can form a rational conception of it; but it is far otherwise when we come to deal with the complex elements of the compound organism. No theory of evolution affords the faintest clue to the intricate processes which connect the germinal vesicle with the mature vertebrate. But with the key which is furnished by the theory of Parasitism we may at least make an approach to an understanding. In the first place it explains why, in the compound organism, two elements are always necessary for complete reproduction. Indeed it seems to me that the very existence of duality of sex is a clear indication of the compound nature of the organisms in which it is exhibited; it is the latest expression of a primitive fact, and its logical sequence. Where the nerve parasite was imperfectly developed, and consequently made but small demands upon its matrix, reproduction could be carried on in one compound individual without so far impairing nutrition as to cause the death of its elements; but a point would ultimately be reached when the nutrition of the nerve animal would so exhaust its matrix that the double function would become impossible, and in the constant struggle between the two one or the other would monopolize the available nutrition in the effort to reproduce its own half; and so, as the beam swung, the male or female element would predominate.* When once the differentiation of sex had been accomplished, the only effect which nerve development could have on the reproductive function would be in the direction of reducing fecundity. It is hardly necessary perhaps, as a proof of this, to point out the difference between fishes and human beings.

When the highly complex compound which led to the vertebrate organism was formed, the reproductive function was at first in a very uncertain and disturbed condition. That I think is the logical conclusion to be drawn from the curious and wasteful method in

*This serves to explain the fact, long recognized by breeders, that if the male is withheld for a certain number of days after the ovum is ready for impregnation the offspring will be male, whereas if impregnation take place immediately it will be female. In the first case the vitality of the ovum has become so far exhausted that the male element is able to gain the predominance; in the second the ovum, having just left the Graafian vesicle, is full of vitality, and able therefore to turn the scale to its own side. Exceptions to this rule would be determined by varying degrees of health and vitality in the parents, and consequently of the vital energy of the respective germs.

force amongst the fishes, and I do not see how else we are to account for it. It is incredible that after millions of years of auto-development and the perfecting influence of natural selection, the first members of the highest type of animal should suddenly cast all heredity to the winds, and break out into the most loose and happy-go-lucky kind of generation that it is possible to conceive. The thing is not reasonable on the face of it. But when once we have grasped the idea of the compound nature of the vertebrate organism, the fact ceases to be an enigma. In the first place the parasite would not affect the reproduction of its matrix, but as it became accustomed to its environment and gradually developed, it would begin to assert its individuality and get to breeding on its own account. This might lead to impregnation of the ova before they were extruded, but I am inclined to doubt it. It is much more likely that both the milt and the ova were cast into the sea at the same time. Then according to the law which governs all parasitic reproduction, the nerve germs would recognize and attach themselves to their appropriate source of nutrition — *i. e.* the ova — and the reproduction of the compound organism would be accomplished by the very method which still obtains amongst most fishes. Afterwards, owing to the causes already cited, would come the differentiation of sex, but a change of method would only result from a progress in development.

This brings us to another perplexing point in the chain of development, and that is the obscure affinities of some of the earlier types. In reference to this Huxley says:

> From the point of view of the evolution hypothesis it is necessary to suppose that the Reptilia have all sprung from a common stock, and I see no justification for supposing that the rapidity of their divergence from this stock was greater before the epoch of the Trias than it has been since. Consequently, seeing that the approximation of the oldest known representatives of the different orders is so slight, reptiles must have lived before the Trias for a length of time compared with which that which has elapsed from the Triassic epoch until now is small—in other words, the commencement of the existence of reptiles must be sought in remote palæozoic times.

Oscar Schmidt, commenting on this, adds:

> Comparison thus points us back to ages which afford no record of the actual derivation of this class (Reptilia). Even the Ichthyosauria and Plesiosauria, so frequently mentioned in conjunction, deviate widely from one another in very essential characters which refer their supposed origin to a remote period. We are thus thrown back on such mixed forms as may have been analogous to the Labyrinthodont; nay, the question arises whether the Ichthyosauria alone, or perhaps the Plesiosauria with them, did not diverge from the fishes independently.

Assuming the compound nature of the vertebrate organism, the obvious explanation of the difficulty is this: that as a result of the parasitic implantation the first individuals would exhibit in themselves a progressive development, and would in the course of their life give birth to a series of progressive types corresponding to the stage of development in the parent or parents. There are no very definite limits to the growth of fishes even now, although this applies wholly to size and not to structure; and the duration of their life is as little fixed. Even within known limits there would be ample opportunity for many adjustments and readjustments of the relation between the parasite and its matrix, and it seems impossible that the changes should not have influenced the character of the offspring. There would be a certain community of type amongst the individuals of one birth, but some of them might, and probably would, diverge very widely from the parental type, because these first forms must have exhibited an extreme flexibility.* A natural corollary of this is that the changes exhibited by the embryo *in utero*, instead of shadowing forth hair-fine shades of development spread over millions of years and innumerable individuals, rather indicate progressive developments occurring in a few individuals within a comparatively short space of time. The latter assumption is at least as legitimate as the former, and it has this great advantage—that

---

*It is a well-recognized fact that in animals, though less frequently than in plants, peculiarities of structure occur which appear to be absolutely useless to the life of the individual, although they are not rudimentary organs. Natural selection fails utterly to explain their existence, but the theory of Parasitism accounts naturally for variations unconnected with immediate utility.

it so reduces the time required for the evolution of these early types that it comes well within the available limits.

(*To be continued.*)

THE HIDDEN DANGERS OF CYCLING.*

BY A. SHADWELL, M.D.

The cycling season will be coming on soon, and there is every reason to suppose that more people than ever will take advantage of it—women especially. The first blush of fashion has already passed away from the bicycle, and with it the principal attraction for very smart folks, but that is more than counterbalanced by the wider popularity of an established practice. The correct instincts of English and American women having relegated all the unfeminine costumes to the limbo of bad style, and resolutely vindicated the supremacy of the skirt, there is no longer anything for nice scruples to boggle at. Riding has acquired an irreproachable title to respectability. The matron in her most desperate mood would scarcely venture to snort at it now; she could not do so without making herself ridiculous — a thing inconceivable. To do her justice, she does not attempt it. She may shake her head at some of the uses to which the British maid puts her machine—as at everything else that misguided young person does—but speaking in a general way, instead of condemning, she is much more likely to get astride of one herself, if only to show how it should be done. Her conversion has been gradual, but it is pretty complete. In short, the bicycle has established itself as a family institution, like sea-bathing in summer and pantomimes in winter. Nothing need prevent any one from enjoying it save want of means, and it is safe to say that an increasing number of people will manage to find the means with the assistance of a market rendered pliant by competition.

The one consideration that might induce cautious individuals to hesitate before attempting a novel and peculiar experiment with their precious persons — the doubt whether it is good for them — has hitherto been ignored or stifled. Everybody sees swarms of men and women like unto themselves skimming gaily along. Everybody hears daily of friends who have gone the same road, while no authoritative warnings have been uttered, and whispers of ill-effects are lost upon the wind, like idle gossip that doth not happen to jump with inclination. Accidents, of course, are not to be denied, and if totted up they would probably cause some consternation for a day or two; but accidents happen everywhere, even in bed — earthquakes for instance—and if one begins worrying about them life becomes impossible. No one allows gloomy anticipations of broken bones and sudden death to interfere with pleasure; they are wisely put aside with the genial conviction that, if come they must, some one else will be the victim. That cycling may possibly entail other untoward consequences is a proposition out of harmony with current ideas. It is not associated with any particular microbe, and is, therefore, necessarily harmless. On the other hand, it means exercise and fresh air (all outdoor air is fresh by courtesy), and therefore it is necessarily beneficial, provided that two or three simple rules are kept. Such is the orthodox teaching of the day, as every board-school infant knows, or should know, if it listens to its accomplished teachers, who are always in the van of intellectual progress. But in spite of the orthodox teaching, I will venture to say that in the course of the next year or two we shall hear quite a different story. That little has hitherto been heard to the disadvantage of cycling is natural enough. Sufficient time has not elapsed since it became a general practice to bring the disadvantages to light—to the light, that is to say, of public recognition. Medical men have been kept studiously in the dark on the subject. They always are in like cases. It is the old story of the bone-setter's art and similar popular fancies. The successes are blazoned abroad, the failures concealed. So with bicycling. The fortunate persons who have derived benefit as well as pleasure from it volubly recount their experiences to the largest audience they can command, and the chorus of praise waxes louder by reiteration. Those who have suffered conceal the fact as far as possible, and especially from the doc-

* Per favor of the *National Review* (London, Eng.).

tor, for fear of being forbidden their "beloved bikes." That is noticeably the habit of young women, who are the chief sufferers. They have a double reason for silence. They set exceptional store by the amusement, and they are by nature shy of saying anything about their health. They will often go nigh to death rather than confide in a mother or sister, lest haply the doctor, whom they dread, should be consulted.

The medical profession generally has thus, I believe, been misled into an overfavorable or overconfident view of cycling, and as a medical man I know their attitude pretty well. They are naturally and quite rightly inclined to approve of anything which takes people into the open air and gives them occupation and exercise; and since all that they hear of the bicycle is in its favor, they readily commend it to all and sundry, unless some serious and definite reason exists to the contrary. If any suspicion of ill-effects does happen to be confided to their ear, it is lightly dismissed as due to "overtaxing the strength." The world feeds on phrases, and they are nowhere swallowed more greedily than in the sick-room. The patient and the patient's friends (happily) never ask what they mean, whether much or little or nothing at all; and the doctor very seldom asks himself. Mathews Duncan used to tell a story about that in his dry way, which derived much of its effect from the broad Scotch accent, not reproducible unfortunately on paper. A lady came to him complaining of a pain in the face, and wanted to know what it was. "It is tic-douloureux," said the eminent physician. "Oh, really! Tic-douloureux," said the lady, quite satisfied. "But if," he used to add, "she had asked me what tic-douloureux was I should have had to say, It's just a pain in the face." "Overtaxing the strength," "overfatigue," and similar expressions may mean a little more than "tic-douloureux," which is nothing but a label, but they conveniently mask an indefinite amount of ignorance. I shall return to this point later, merely observing here that the easy-going use of such wide and superficial formulas leads to self-deception and error. Doctors put off their guard by a phrase may miss the real bearing of facts before them, and give disastrous advice when consulted.

I have known serious and long-continued mischief caused by riding, as the subsequent course of the case proved; but a doctor to whom it was suggested that the machine might be to blame pooh-poohed the idea, because the amount of riding done was so very moderate as to preclude "overfatigue," and he had never heard that it could do harm in any other way. He confidently recommended the patient to continue riding "in moderation," with the result that she has never been able to ride since. So far as can be judged from public utterances that is the general view of the profession and of the public alike. Observe moderation and you are perfectly safe. Perhaps one ought to add, "Wear flannel next the skin," a time-honored shibboleth, which derives its only authority from constant repetition, but is received by this enlightened age with as much respect as a formula for exorcising the devil used to inspire in our benighted forefathers.

I ought, perhaps, to mention here the late Sir Benjamin Richardson, as otherwise some one is sure to throw him at my head. I knew him, and desire to speak of him with all respect. He was undoubtedly responsible for much of the general confidence in the hygienic virtues of cycling. But at the time he devoted attention to it comparatively few people rode; he had not had the opportunity of observing its effects, by which alone it can be judged, when practiced in the indiscriminate manner that now prevails. Latterly he did considerably modify the views he once held, but naturally he attracted less notice as a wet blanket than as an enthusiastic advocate,—in that capacity his ardor was somewhat apt to outrun his judgment; moreover, his own experiences, on which his favorable opinion was mainly based, were, if I remember right, confined to a tricycle, which is by no means the same thing as a bicycle. On all these grounds the favorable opinions associated with his name require to be discounted when applied to the question as it stands to-day. He was quite right in drawing attention to the value of this form of exercise—it *is* good for many people. My point is that among the enormous numbers who have taken to it within the last two years there are many others for whom it is not

good, but distinctly hurtful, and that in ways and for reasons which are not yet generally recognized.

In spite of the tendency of riders to conceal untoward results and of doctors to minimize or misinterpret them when discovered, the facts come gradually to light, and from what I have observed I cannot but think that before long they will attract serious and general attention. Since last summer, wherever I have been I have heard of persons who are unpleasantly disappointed by the effect of riding on themselves, and of others who have been completely "jacked up" by it, to use an expressive piece of schoolboy slang. At the same time I have heard of others again—including women—who do their thirty, fifty, or seventy miles and "never felt better in their lives." I do not happen to have met any of those who are said to have been restored by the curative bicycle to perfect health from a condition reminding one of the testimonials to somebody's pills, but I am quite willing to believe that they exist. It would not affect my argument in the least if swarms of them had been rescued from the grave and could ride a thousand miles without turning a hair. It is of those who cannot that I speak; of those who cannot ride even a moderate distance without unpleasant or serious consequences. They may not be so numerous as I suppose, but they exist, and there is nothing on the face of it to distinguish them from the rest. That is where the danger lies. Here is a case. A girl, healthy, rather stronger than the average, able to take her part with the rest in other things, learns to cycle. She rides with her friends and rather enjoys it. To all appearances she can do as much as anybody in short flights. One day they go farther, nothing much, perhaps ten miles: the result, utter collapse, with bed for several days. And the same thing happens whenever she ventures beyond the merest potter. Her friends, no stronger, no more experienced, are not affected in the same way at all. She "overtaxed her strength." Of course she did; but she did not know she was doing it, and had no reason to suppose it. That was just the mischief. Sometimes the consequences are much more serious. In one case within my knowledge a girl developed exophthalmic goitre as the result of a rather long ride, which she supposed herself able to accomplish without difficulty. Her throat swelled at the time, never went down, and quickly developed into a well-marked case. This obscure but serious affection is said to be chiefly caused by "mental excitement." Another form of organic injury that I have come across is internal inflammation, of which the symptoms are much pain and a kind of chronic dysentery, extremely obstinate and of the most lowering character. The first case that I noticed was that of a lady of good constitution, active, and able to hold her own at other forms of exercise. She mastered the machine with exceptional facility, almost at the first essay, and was an easy and graceful rider. But being rather timid she never rode more than a mile or two at a time, and that at the most moderate pace. Nevertheless, this trouble developed itself, and did not subside for months, to the great detriment of her health, which has not yet recovered. At first I was not sure about the cause, but the recurrence of acute symptoms so long as the bicycle was used, and their gradual subsidence when it was completely laid aside, left no doubt. Since then other precisely similar cases have occurred within my knowledge. And I notice that quite recently one of the medical journals has called attention to the occurrence of appendicitis caused by bicycle riding. A definite anatomical explanation is suggested, into which I need not enter, as this is not a medical review, and I am not a New Woman. Suffice it to say that internal inflammation is not only a conceivable but a likely consequence of the motions involved. I submit that its occurrence without any excessive indulgence in riding is one of the hidden dangers against which people should be on their guard. The cases I have mentioned were greatly aggravated by want of early recognition. How many other women have spent the major part of the winter in bed or on the sofa from the same cause?

But more important, perhaps, because more common and more easily overlooked, than such decided injuries, are the various forms of ill defined nervous effects to which attention is at length being called. The *Standard* has lately given hospitality to a

voluminous correspondence on the subject, which merits more notice than popular newspaper controversies usually get—or deserve. It began with reference to the six days' race that took place at New York a little before Christmas with such disastrous results to the competitors. They broke the record decisively, and their own health still more so. The account which reached this country is worth quoting:

> Several of the competitors were seized with a species of dementia. Taylor was quite out of his mind for nearly two days, refusing to touch food or drink and charging his attendants with attempts to poison him. Hale showed slight symptoms of delusion on Saturday, when he dismounted and declared excitedly that there was a scheme to run him down. Rice threw himself down by the side of the track, declaring that one-half of his head had been carried away, and that he would be killed if he remounted his machine. On Saturday afternoon he addressed the audience, saying they were throwing stones and brickbats at him. Another rider dismounted, turned his wheel about, and started at a lively pace in the opposite direction. Few of the other contestants were able to stand without support when they retired.

The account may be exaggerated, but it is too circumstantial to have been invented, and at any rate Hale (the winner) was too ill to enter for another race about three weeks afterwards. After allowing a liberal discount for the well known propensities of the Transatlantic cable, one must admit that the details are rather striking. In commenting on the occurrence it was suggested that in addition to the want of sleep, to which the condition of the riders was no doubt partly due, bicycling in itself puts a peculiar strain upon the nervous system, not shared by other forms of athletic exercise. The suggestion drew two corroborative letters, and then the floodgates opened, pouring forth columns of opinions and experiences and theories, many emanating from medical men, and all from obviously intelligent persons. There were sixty-six letters in all, and they may be analyzed thus: Thirteen roundly maintained that cycling is absolutely beneficial on the strength of the writers' experience. Thirteen testified to bad effects of the kind suggested; eighteen more or less admitted them by implication; twelve denied bad effects except from "overexertion;" and the remainder dealt with matters irrelevant to the question. Practically there were twenty-five against the theory of special damage, and about thirty either in favor of it or not against it. Of course these may not in the least represent the relative proportions of the letters received on each side; probably a selection was made to represent all opinions fairly. And therefore no conclusion ought to be drawn as to the verdict of the majority, or anything of that kind. The evidence must be weighed, not counted. And, first, the fortunate persons who take their stand upon the virtues of bicycling may be dismissed with congratulations and a gentle reminder that what is sauce for the goose is not always sauce for the gander, that one man's meat is another man's poison, and so forth and so forth. Their testimony is an interesting proof that cycling is very good for some people, but it is no evidence at all that it may not be bad for others, which is the point at issue. Cold baths, strong ale, and very light clothing conduce greatly to my health, but I should be sorry to assert that they must suit everybody. On the other hand, the testimony of those who have suffered must be accepted as proof positive that bicycling may be bad for some people. That, indeed, cannot be seriously denied. The only question is, How and why it is bad? The stock answer, sufficiently exemplified in the *Standard* correspondence, is that it has been "carried to excess," and that if practiced "in moderation" it would have no such results. Really one cannot help sympathizing with a writer who called himself "Common Sense," and described this dictum as a "meaningless platitude," to the great wrath of some others. It is not meaningless, because the nature of a platitude is to have some meaning, but so elementary as to be useless. A platitude it undoubtedly is—one of the oldest and widest of all platitudes—and therefore useless for particular application: it is too wide. "May I cycle, doctor?" "Certainly, but remember that excess is bad. You must be careful to observe moderation." Observe moderation! You might as well say, "Look before you leap," or "Pride goes before a fall." What the intending cyclist wants to know is, What are excess and moderation for him or for her?

The implied answer is that they are to be measured, just as in other forms of exercise,

by the amount of muscular effort expended by the individual. In short, stop when you feel tired. Now, I am not constrained to deny that neglect of this rule is responsible for a good deal of the mischief. There are several reasons why it is neglected. To begin with, cycling as a fashionable craze has been attempted by people unfit for any exertion. Then there is emulation, which stimulates to ride as far and as fast as some one else; and as regards women, there is the ardor that characterizes the sex in all it does, even—and most particularly—in the act of unsexing itself. But these things are general; they apply to every form of active occupation. A vice—from another point of view a virtue—peculiar to the bicycle, that I do not remember having seen noticed, is that the ease and rapidity of the locomotion tempt to over-long rides by bringing some desirable objective within apparent reach. Going to nowhere and back is dull, going to somewhere (only a few miles farther) is attractive; and thus many are lured to attempt a task beyond their physical powers. "Expeditions" have much to answer for. But mischief is often done, I maintain, without going to such lengths or consciously exceeding the limits of strength at all. It is a fallacy to make muscular effort the measure of excess and moderation in this form of exercise. Some people contend that cycling is very hard work, and if that expression is used in the sense of general strain upon the organism I have no objection to it; but if it mean severe muscular effort I deny it altogether. Putting aside racing, which always entails great effort, the ordinary propulsion of the machine demands amazingly little exertion, compared with most other forms of exercise. Therein lies its greatest attraction and its greatest hidden danger. Children, fragile women, and old men, who would be quite incapable of really hard work, find they can do it with ease. It may be said that for them it *is* hard work, and that accounts for the complaints. If they alone suffered the contention might stand, but that is not the case. Men of more than average vigor, and accustomed to far harder work, complain of the peculiar effects, nor are the symptoms those of over-exertion. They are essentially nervous, not muscular—headache, insomnia, lassitude, nervous depression, and prostration. "The after-effects of cycling," says an experienced rider and one accustomed to far more violent forms of exercise, "are quite different from those of any other outdoor exercise with which I am acquainted, and less pleasant. Even a short ride leaves me with a pallid face, a palpitating heart, the beginnings of a headache, and a tendency to insomnia." Another speaks of the "peculiar form of nervous exhaustion," and "that strained feeling which led to insomnia and headache." A third, the "holder of many cups won on the running path and river," declares himself "quite unable to cycle, as even a short run on a machine at the easiest of paces gives me a severe headache." A fourth, sufficiently robust to have covered one hundred and fifty miles of hilly road in a day, confesses to "having experienced the unpleasant sensations described." A fifth, who has ridden every sort of machine from the bone-shaker onwards, testifies to having experienced "great nervous exhaustion," loss of appetite, restlessness at night, and, the next day, a "very low, irritable, and depressed feeling." A sixth "victim to the errors of cycling" suffered a complete breakdown after twelve years' riding, during which "nervous symptoms and weakness of the heart's action gradually grew upon him;" after going abroad to regain his health he took it up again, "with the result that my heart and nerves have suffered perhaps beyond repair this time." A seventh assures us that the "symptoms complained of—headache, insomnia, etc.—were known and recognized as an evil sixteen or eighteen years ago."

Now I submit that the theory of over-exertion is quite inadequate to explain the kind of effects here described. To my mind they point distinctly to a cerebral, and not a muscular, origin. They are not associated with other far more severe forms of exercise, such as football, rowing, running, swimming, gymnastics. They rather resemble the effects of overindulgence in tobacco or alcohol, and are nearly allied to that affection of nervous origin which is called sick-headache. Their independence of muscular effort is further demonstrated by the fact, testified by several sufferers, that they do not follow on the use of the tricycle, which undeniably entails

much harder work. It is therefore fallacious to make bodily strength the measure of indulgence in bicycling and to rely on the sense of effort to indicate when to stop, as in lawn-tennis or walking, for instance, when the arm or the leg gives timely warning that the limit of "moderation" has been reached. In bicycle riding it is the very absence of conscious effort, in the ordinary sense, that misleads the susceptible into "excess," unless they are warned to look out for a different kind of fatigue.

Various causes are assigned for these nervous troubles. Some blame the saddle, others the vibration or the mechanical defects of the machine; and no doubt anything which increases discomfort tends to aggravate the mischief. But all these factors are common to the tricycle, which has been found void of offense. The *vera causa* seems to lie in the extreme instability of the two-wheeled machine, which can never be left to itself for a single moment without dismounting. In this respect bicycling differs from any other occupation whatever. The strain of attending to it may not be very great in itself—sometimes it is and sometimes it is not—but it never ceases, and this incessant tension is the thing which tells upon the nerves. How incessant it is the demeanor of most riders declares with an emphasis which still excites ridicule, familiar as the sight has become. Some time ago I drew attention to the peculiar strained, set look so often associated with this pastime, and called it the "bicycle face;" the general adoption of the phrase since then indicates a general recognition of its justice. Some wear the "face" more and some less marked, but nearly all have it, except the small boys who care little for croppers. Has anybody ever seen persons on bicycles talking and laughing and looking *jolly*, like persons engaged in any other amusement? Never, I swear. Doubtless they can at a pinch, but in practice they don't. All their attention is given up to the road and the machine. With set faces, eyes fixed before them, and an expression either anxious, irritable, or at best stony, they pedal away, looking neither to the right nor to the left, save for an instantaneous flash, and speaking not at all, except a word flung gasping over the shoulder at most. It is this strange and unhuman gravity which excites the ridicule and hostility of the street cad and of the dull-witted rustic alike. The enthusiast will indignantly deny the description, but I ask him to look at his fellow. Did ever pastime wear a mien so sombre? The bicyclist has reason, for let the attention wander for more than an instant, and the odds are heavy on a spill. The machine is so excessively crank; it cannot stand the slightest shock. To ride it safely entails a double strain—a general one on the nerves and a particular one on the balancing centre. The latter does not affect everybody, but I am certain that it affects some very seriously. People differ in balancing capacity as much as in an ear for music or a gift for speech; and it costs some riders real and constant effort to keep their equilibrium. They show it by suffering from headache at the back of the head, where the balancing centre is situated. The general strain on the nerves affects everybody, but some people "have no nerves," and therefore do not suffer. The naturally timid and anxious feel it very acutely. Apprehension works their senses up to a high pitch of tension, and puts a severe nervous strain upon them. Then certain persons are specially susceptible to the work thrown upon the optic nerve by the rapid succession of impressions received when moving quickly. Hence the headache commonly caused by looking out of the window on a long journey—"sick-headache" or migraine. That is exactly the sort of headache many bicyclists complain of.

I do not want to labor the point too much. Surely the foregoing considerations are enough to explain the nervous exhaustion caused by bicycling, wholly apart from over-exertion. The close and incessant application of mind and brain and senses is the root of it. Riding this fascinating contrivance demands much the same sort of attention as crossing a crowded thoroughfare; and if any one will spend an hour or so straight on end in that amusement, I will wager he will experience something of the symptoms I have been discussing, although his physical exertions have been inconsiderable.

The foregoing observations by no means pretend to exhaust the subject; they merely aim at elucidating, however roughly and ten-

tatively, some of its obscurities. That bicycling is attended with serious evils which do not appear on the surface and have received too little attention cannot well be denied. I have endeavored to explain their why and wherefore, and to show that very much greater caution is necessary than has generally been supposed. My arguments will doubtless meet with criticism and opposition, but it is only by the accumulation of experiences and the clash of discussion that the truth is ultimately reached.

London, England.

ACNE.

BY JAMES M. BLAINE, M.D.

According to the statistics prepared by the American Dermatological Association, acne ranks third in order of frequency, constituting eight per cent. of all cases seen in dermatological practice. These figures, however, can hardly be accepted as representing the true proportion, for many cases are never treated at all, while many others are never recorded; so I venture the assertion that if all cases were recorded the percentage would be doubled.

Viewed from a pathological standpoint acne is not a serious complaint, but if estimated by the disfigurement and chagrin occasioned to the patient, together with its frequency, it must be considered as one of the most serious of dermatoses and its proper management of the greatest importance.

At the time of puberty the glands of the body undergo a decided change, and the hair roots on the face that have apparently been dormant up to this time suddenly begin to develop. In many cases this change takes place without any pathological condition resulting, while in others the increased activity amounts to an inflammation, which begins in the sebaceous glands and extends to the hair follicle. The sebum is changed in character and usually increased in amount, while the peri-follicular inflammation in the hair follicle causes an exfoliation of the stratum corneum, so that the duct becomes plugged up and the resulting comedo or plug is composed of epidermic scales and sebum, and occasionally fragments of hair. With the mouth thus occluded, the duct becomes distended, and the accumulated contents form a convenient nidus for the lodgment of pathogenic micro-organisms, with the resulting pustule.

In a typical case of acne the lesions are found in all stages of development, from a small comedo to a large pustule.

The most simple classification of acne is to divide it into two classes—acne simplex (or vulgaris) and acne indurata; the former covering all superficial cases, and the latter applying to those that are deep-seated. These two divisions imply as much and are less confusing than those suggested from time to time, such as *acne artificialis*, *a. atrophica*, *a. cachecticorum*, *a. frontalis*, *a. keratosa*, and about a dozen others, whose utility consists more as an outlet for literary ambitions than to express a pathological or anatomical condition. *Acne rosacea* is an unfortunate compound term that has escaped the critic's eye until recent years, when common sense divorced the words, which have nothing in common except location.

Acne may occur at any period of life after the age of puberty, but it is most common between the ages of fourteen and twenty-one; and it may occur on any part of the body that is supplied with sebaceous glands, but is most common on the face, back, and chest. The chief cause is the change which takes place at the time of puberty in the hair-forming apparatus. It may also be produced by an irritation, either local or reflex, and when once established may be prolonged indefinitely by a very slight irritation; this is due to the fact that after it becomes chronic the epidermis has become thickened and the follicles dilated, so that it is difficult for the sebum to be passed out when excreted. Under such circumstances a slight derangement of the stomach, liver, bowels, kidneys or sexual apparatus may prolong it for years.

In a case of acne indurata of nineteen years' standing which I recently treated, it began during the first gestation. Some years later during a second gestation it abated, only to return after parturition. Any deviation from normal health or habits may produce acne, and in searching for a cause it will be necessary to interrogate thoroughly

every internal organ. Among local causes may be mentioned irritants, cosmetic applications, and uncleanliness.

I must now leave this part of the subject and pass to the more important consideration, viz., the treatment of acne.

As a large percentage of these cases are kept up by gastro-intestinal irritation, the first point to be considered is diet. The food should be nutritious but non-irritating; all articles known to be irritating, and that in some cases are sure to produce acne, should be proscribed. I have frequently found persons with weak digestive powers who had fallen into the insane idea that oatmeal, whole wheat and so-called health foods were good for dyspepsia, when in truth they are only good to produce the disease.

After carefully regulating the diet, I have found much benefit in dyspeptic cases from administration of tincture of hoang-nan, which contains the alkaloids strychnia and brucia; it increases appetite and stimulates both gastric and intestinal digestion, and has also an effect on the sebaceous glands, correcting both the quantity and quality of the secretion. Where the liver and bowels are torpid and the circulation filled with ptomaines, excellent results may be obtained by the administration of sodium sulphate. The kidneys, being in close sympathy with the skin, should also be carefully looked after. If their excretory function is not properly performed a diuretic is indicated; besides, if any specific disease exists in them it should receive attention.

Amenorrhœa, dysmenorrhœa, displacement and inflammation of the womb are all fruitful causes of acne and should receive proper attention. If the patient suffers from anæmia or chlorosis, and in cases of so-called acne cachecticorum, iron, arsenic, phosphorus and cod-liver oil are indicated. In robust cases, with a tendency to the formation of large quantities of pus, I have always obtained good results from the use of sulphide of calcium, but this medicament should be freshly prepared, as pills are liable to be old, insoluble, therefore inert.

By far the most important part of the treatment of acne is the mechanical. The instruments for this purpose consist of a comedo extractor, an acne lance, and a curette. All comedones that have not suppurated should be carefully pressed out. The best instrument for this purpose is the one devised by Unna, which is shaped like the handle of a spoon, with a small, round opening in the end; it is easy to keep clean, and with it one can always see the comedo and effect the pressure. If inflammation and suppuration have taken place the lesion should be opened with the acne lance and allowed to bleed freely, so as to get rid of the pus, the comedo, and also the inflammatory engorgement. In cases where the corneous layer is thickened and the skin is studded with comedones and pustules, the quickest and best plan of operation is by the use of the curette. After washing the face thoroughly with an antiseptic solution, the curette should be passed rapidly over the surface with a free hand movement; this action removes the corneous layer, while the pustules and comedones are exposed to view. Then by reversing the curette and pressing the dull edges the comedones and pustules are easily expressed. The best curette for this purpose is the one recommended by Bronson, of New York, which has a long fenestrum, tapering toward the point, in the shape of an olive. If this operation is thoroughly done about once a week, the length of time required for a cure will be very much shortened.

Having attended to the mechanical treatment the next consideration is local medication. All local applications should contain a germicide. After curetting the surface and evacuating the pus and comedones, one of the best preparations I have ever used is an ointment containing one drachm of the oleate of zinc and twenty grains of resorcin to the ounce, which should be applied at night after thoroughly bathing the face in hot water. In the morning, if the patient wishes to appear on the streets or attend to business, I have him apply a lotion of bichloride, sulphuric ether, and rose-water; or, if the patient is a lady who wishes a cosmetic, I employ zinc oxide, calamine powder, glycerin, and rose-water, to which may be added any convenient germicide.

In milder cases, or where the patient objects to the use of the curette, good results may be obtained by the use of sulphur or

ichthyol; both are good germicides and stimulating remedies, and in chronic cases will accomplish much.

In acute cases where there is much inflammation and little pus, mild astringents with a germicide will suffice. The base of all ointments should be wool-fat, to which may be added twenty-five per cent. of almond oil, which renders it more pliable and less sticky.

In speaking of the causes of acne I mentioned uncleanliness. By this I mean that some persons, through fear of injuring the skin, do not use a sufficient amount of soap (or a soap of sufficient strength) to relieve the skin of the effete material exuded from it or the extraneous matter which attaches to it. Hebra was fond of applying a lather of green soap to the face at night, washing it off in the morning. During the night the green soap, by virtue of an excess of alkali, would exert a chemical action on the sebaceous material, and when washed off leave the follicles free from effete material; it would also exerts a stimulating action on the skin. This plan of treatment is too severe for many patients, but there are some who could use it to advantage, and many more could derive benefit from the use of soap as a toilet article.

The finest complexions in the world are possessed by the daughters of the peasantry who, through force of circumstances, are compelled to observe the laws of hygiene in regard to exercise and sleep, who do not use cosmetics, and who wash their faces with soap which is strong enough to produce the effect desired. To prove that this picture is not overdrawn, I may cite the case of a young lady who recently came under my care, who had abstained from the use of soap for a period of two years. Practically every follicle on her face contained either a pustule or a comedo. Now she washes her face with strong soap, and this, combined with the treatment suitable to her case, is fast bringing her complexion back to its normal condition.

The use of massage and electricity is indicated in chronic cases of acne, and may be resorted to when other measures fail.

The prognosis is always favorable; every case should be cured if properly treated. Many cases get well of their own accord at or before the age of maturity, but the danger in allowing cases to continue untreated is that the disease will cause cicatrices, which, while they may be contracted to a limited extent, can never be eradicated.

This paper is a mere outline of the causes and treatment of acne. I have aimed to give a general plan rather than minutiæ. There are many useful remedies which I have not space to mention, but a due knowledge of materia medica will suggest them when indicated. The plan which I have briefly outlined is one that has the approval of many of our best dermatologists, and the one with which I have had most success.

Denver, Colorado.

MAN IN THE GLACIAL PERIOD.

The latest evidence as to the occurrence of Man in the Glacial Period has just appeared in the *American Geologist*, where Doctor E. W. Claypole records the finding of a grooved stone axe at a depth of twenty-two feet in the drift of North-central Ohio. The axe, which was partially embedded in boulder clay, lay in a bed of coarse gravel one foot in thickness; above this was a bed of silt, thirteen feet in thickness, and very tough below; embedded in this were streaks of sand; finally, there was superimposed eight feet of clay. Doctor Claypole regards these beds as having been "the deposits of the torrents of water and the still pools which characterize the flow from the front of a glacier in a flat country;" he supports his statement by a description of the district, and also enters into the *bonâ fides* of the discoverer of the implement. The axe was made of a hard, banded green slate, but it was oxidized throughout, owing to the sulphureous character of the water in the gravel; the concentric lines of color (limonite stains) parallel to the contour of the implement prove that the change has taken place since it was fashioned by its Neolithic maker, and the rotten state of the stone shows that it must have been embedded in the gravel for a very long time. It is always a difficult matter to sift the evidence of such finds, but this one seems to be worthy of the critical examination of American geologists and archæologists.

THE MEDICAL AGE.

A SEMI-MONTHLY REVIEW OF MEDICINE.

—PUBLISHED BY—

GEO. S. DAVIS, Medical Publisher, Box 470.

All communications regarding papers, reports, etc., should be addressed to the Editor of the MEDICAL AGE, P. O. Box 470, Detroit, Mich.

Matters relating to advertising space, etc., to be addressed to the publisher, Geo. S. Davis, Box 470, Detroit, Mich.

The editor cannot engage to return rejected manuscripts or to correspond with the writers thereof, unless such are accompanied by sufficient postage.

DETROIT, MICH., APRIL 10th, 1897.

Editorial.

LEGALIZED CHARLATANISM IN MICHIGAN.

Again the legislative halls of the great Commonwealth of Michigan have been made a "stench in the nostrils" to all educated and decent people. A so-called medical system entitled "Osteopathy," which does not even deserve to be ranked with the practice of the Indian *powahs* and Siberian *shamans*, has just received legal sanction, and in a way moreover that entirely excludes it from being interfered with or in any measure brought under subsequent medical acts.

Recently a School for the Feeble-minded was set up in Lapeer, but it is evident that Lansing is its proper home.

SESAMOID BONES.

It is seldom that attention is ever called to sesamoid bones in connection with either medicine or surgery proper, though for some time it has been recognized they may constitute an undesirable complication, first in the production of, and second in the operation upon, hallux valgus.

Some years ago an author (whose name is now forgotten) called attention to the fact that the sesamoids were likely to be much more abundant in the female than in the male, particularly about the wrist joint; but this was mentioned apparently as a matter of curiosity and no physiological deduction drawn therefrom, except that it was suggested in one or two instances which had fallen under observation they might have had some connection with the early age at which the girls were put at the piano—viz., three and four years.

More recently Mr. F. J. Reid, who has been amusing himself taking *x*-ray photographs, corroborates the statement as regards the greater frequency of sesamoids in the female than in the male hand. He also adds a sesamoid is most often found in the metacarpo-phalangeal joint of the little finger, less frequently in the index; in one case there were two in the inter-phalangeal joint of the thumb, and in this hand—including the two always found in the metacarpo-phalangeal joint of the thumb—there were no less than six sesamoids. In male hands the bones seem to be more evenly divided between the index and little fingers.

It may be added also that sesamoids as a rule are larger in proportion in the female than in the opposite sex.

THE SOLUBILITY OF COATED PILLS.

It is rather surprising to learn that crude mechanics are henceforth to be the criterion by which the solubility of pills is to be measured—at least this is apparently the fact, judging from certain paragraphs that are going the rounds of the medical and pharmaceutical press, to the effect that ordinary sugar- or gelatin-coated pills are so hard they can be driven into or through a pine board with a hammer. The inference to be drawn therefore is, that somebody's pills are the only reliable pharmaceuticals of this character in market.

It would seem to the unbiased observer as if a resort to the obsolete tricks of schoolboys of half a century ago should be beneath exploitation by a reputable firm. The claim regarding pills being driven through a board, etc., is alike descending to deceit and sophistry. The same trick can be performed with almost any pill, coated or uncoated, and proves nothing. A tallow candle has been driven through a two-inch plank, but this does not prove it will not melt in the flame or that it is as insoluble as an iron spike. So, too, pill-driving depends upon the same manipulation—any one can do it provided the blow struck is only *quick* and *heavy* enough.

When such puerile measures are resorted to in order to market goods it seems to us

the bounds of legitimate advertising and legitimate competition are not alone transgressed, but the operators are entitled to no more credence than is given to the ordinary charlatan.

As a matter of fact the solubility of pills does not depend upon their friability, but upon their constituents both before and after being brought into spherical form. It may as well be remembered also that friability depends to a certain extent upon the addition of certain "insoluble" substances—in other words, extraneous material is added to prevent perfect cohesion, which also tends to inhibit true solubility and interfere with the normal action of digestive secretions. In other words, the pill *that cannot* be driven through the board by means of trickery presents another version of the ass masquerading in the lion's skin.

MARRIAGE OF THE DEAD.

In the "Book of Ser Marco Polo"* it is stated regarding the Tartars that "if any man have a daughter who dies before marriage, and another man have had a son also die before marriage, the parents of the two arrange a grand wedding between the dead lad and lass. And marry them they do, making a regular contract! And when the contract papers are made out, they put them in the fire in order that the parties in the other world may know the fact, and so look on each other as man and wife. And the parents thenceforward consider themselves *sib* to each other just as if their children had lived and married. Whatever may be agreed upon between the parties as dowry, those who have to pay it cause to be printed on pieces of paper, and then put these in the fire, saying in that way the dead person will get all the real articles in the other world."

Commenting on this, the late Colonel Yule, who edited two or three editions of the works of Marco Polo, remarks "this is a Chinese custom, though no doubt we may trust Marco for its being a Tartar one also." A Japanese student, resident in London—Kumagusu Minakata—recently undertook to look up the history of the "marriage of the dead," but was unable to discover any definite evidence whether or not it obtained earlier than the beginning of the dynasty of Yuen, and there has always been a doubt whether it was originally common to the Chinese or the Tartars. Recently, however, he discovered in the British Museum a copy of the *Tsoh-Mungluh*, which, as he writes to *Nature*, seems to decide the question. The passage is as follows:

> In the North there is this custom. When a youth and a girl of marriageable ages die before marriage their families appoint a match-maker to negotiate their nuptials, whom they call *Kweimei*.* Either family hands over to another a paper noticing all prerequisites concerning the affair; and by names of the parents of the intended couple asks a man to pray and divine; and if the presage tells that the union is a lucky one, clothes and ornaments are made for the deceased pair. Now the "match-maker" goes to the burying-ground of the bride-groom, and offering wine and fruits requests the pair to marry. There two seats are prepared on adjoining positions, either of which having behind it a small banner more than a foot long. Before the ceremony is consecrated by libation, the two banners remain hanging perpendicularly and still; but when the libation is sprinkled and the deceased couple are requested to marry, the banners commence to gradually approach till they touch one another, which shows that they are both glad of the wedlock. However, when one of them dislikes another, it would happen that the banner representing the unwilling party does not move to approach the other banner. In case the couple should die too young to understand the matter, a dead man is appointed as a tutor to the male defunct, and some effigies are made to serve as the instructress and maids to the female defunct.† The dead tutor thus nominated is informed of his appointment by a paper offered to him, on which are inscribed his name and age. After the consummation of the marriage the new consorts appear in dreams to their respective parents-in-law. Should this custom be discarded, the unhappy defuncts might do mischief to their negligent relatives. . . . On every occasion of these nuptials both families give some presents to the match-maker, whose sole business is annually to inspect the newly-deceased couples around his village, and to arrange their weddings to earn his livelihood.

This is very interesting, for, besides giving a faithful account of the particulars, which

*Second Edition, Volume I, pp. 259 to 260.

*"Match-maker of Ghosts."

†The translator admits the last clause in the original text is doubtful in reading, and that it may perhaps be more correctly rendered as: "And the family of the intended bride provides her with various sorts of utensils and apparel needful to her nurse and maid-servants in the other world."

are to be found nowhere else, it bears testimony to the Tartar, and not Chinese, origin of this practice. The author of the work in question, Kang Yu-chi, describes himself to have visited his old home in Northern China shortly after its subjugation by the Kin Tartars in 1126 A.D.; so there is no doubt that among many institutional novelties then introduced to China by the northern invaders, Marriage of the Dead was so striking that the author did not hesitate to describe it for the first time.

According to a Persian writer, whom Pétis de Lacroix cites, this custom was adopted by Jenghiz Khan as a means to preserve amity amongst his subjects, and forms the subject of Article XIX of his *Yasa*, promulgated in 1205 A.D. Lacroix adds: "This custom is still in use amongst the Tartars at this day, but superstition has added more circumstances to it: They throw the contract of marriage into the fire after having drawn some figures on it to represent the persons pretended to be marry'd, and some forms of beasts; and are persuaded that all this is carried by the smoke to their children, who thereupon marry in the other world."* As the Chinese author does not speak of the burning of papers in this connection, whereas the Persian writer speaks definitely of its having been added later, it seems that the Marriage of the Dead had been originally a Tartar custom, with which the well known Chinese paper-burning was amalgamated subsequently between the reigns of Jenghiz and his grandson Kublai.—Under the latter Marco witnessed the custom already established and, perhaps, chiefly prevailing, amongst the Tartar descendants.

*"History of Genghizcan the Great," London, 1722, page 86.

EDITORIAL NOTES.

Physiology of Sundew.—

In the January number of the *Quarterly Journal of Microscopical Science* Miss Huie describes the results of a very precise and systematic investigation of the changes which take place in the protoplasm and nucleus of the gland-cells in the tentacles of the *Drosera rotundifolia*, after the feeding of the leaf with pieces of white of egg. The first effect of the contact of the food appears to be the discharge of secretion from the gland-cells. The secretion is formed at the expense of the basophile cytoplasm, which is stained by alkaline stains. The nucleus produces new cytoplasm of the same kind, by absorbing nutriment, converting it, and then "excreting" it. In this process the nuclear chromation takes the form of V-shaped chromosomes, and the nucleolus grows smaller and almost disappears. The nuclear chromation increases in bulk. Thus the changes which occur resemble those to which so much attention has been directed in mitosis or the division of the cell, and the conclusion is drawn that these changes indicate great activity in the nuclear organs, and are not exclusively characteristic of cell-division —*Nature.*

Pseudo-Science.—

There is but one step from the sublime to the ridiculous, and "it is often a very short one," pertinently observes the *Texas Medical Journal*, which deals with the subject of useless vivisection without gloves. Finally the query is made "what possible good can come from tying a vein or the thoracic duct in a lot of rabbits, for instance, then dosing them with alcohol and taking the temperature?"—This with reference to a series of such experiments given with most minute detail in a new journal. In this same periodical referred to, Brother Daniels remarks: "The climax of absurdity is reached in an article on 'The Relation of the Volume of the Coronary Circulation to the Frequency and Force of the Ventricular Contractions of the Isolated Heart of a Cat!' —color and kind of cat not stated, nor whether of the Thomas or the Tabitha persuasion."

Paraffin in Confectionery.—

In January last a shopkeeper in the suburbs of London was brought before a magistrate for selling "cocoanut sticks," which on investigation were found to be adulterated with sixteen per cent. of paraffin. The defendant claimed he "sold the sweet stuff" just as he got it. Nevertheless he was com-

pelled to pay a fine of two pounds, with twelve shillings and sixpence cost.

It might be as well if some of our dairy and food commissioners in the United States would investigate the "sweet stuff" with which our own young are being poisoned—there is no place on the globe where cheap confectionery obtains to a greater degree than in the United States, and the word "cheap" is too often a synonym for "nasty."

Leprosy.—

The *Physician and Surgeon* says there are 27,000 lepers in Colombia.

Does this mean in the United States of Colombia? If so we fear the *P. and S.* has been misinformed. Perhaps the printer has made an error as to ciphers. As a matter of fact leprosy is no more common here than in other South American countries. More may be found in and about the Maracaibo district of Venezuela than in all Colombia.

Tabes Dorsalis.—

Bechterew, according to *The Lancet* (London), has been employing cerium oxalate in the treatment of gastric crisis of locomotor ataxia with marked success.

The same claim has been made before, and yet the evidence adduced has not been at all satisfactory. It would seem as if some one might undertake a systematic investigation of this drug.

L'Union Medicale.—

After fifty-one years of existence this, among the very best of the French medical periodicals, has suspended publication. The cause is not lack of appreciation, only that its editors have concluded to join forces with *Le Bulletin Médical.*

Anhalonium Lewinii.—

S. Weir Mitchell predicts that mescal button will prove a perilous rival of cocaine and morphine for habitués when it becomes better known and more easily procurable.

A Pertinent Query.—

Was the egg or the chicken created first—ditto, the disease or the germ?—*Medical Recorder.*

Items and News.

Gall-Insects of Australia.—

In a paper on gall-making coccids, by Mr. C. Fuller, appearing in the *Agricultural Gazette* of New South Wales, details are given concerning the genus Brachyscelis, the members of which live exclusively upon species of eucalyptus, causing the growth of woody galls, in the heart of which they dwell. These coccids are popularly known in Australia as "gall-makers," but the gall-growth differs from the "meal" of the mealy-bug and the "scale" of the bark-louse—which are other Australian species of Coccidæ—in that it is brought into existence at the actual and direct expense of the tissue of the plants, whilst the meal and the scales are products secreted or excreted from the bodies of the insects themselves. The larvæ of all Brachysceles are so similar in appearance as to afford no sufficient characteristics for the determination of species. The male galls take the form of short cylindrical tubes, not exceeding six lines in length, and generally growing upon the leaves. The female galls exhibit a great variety of forms, which supply the easiest means of distinguishing the different species, and which vary in length from half an inch to six or seven inches. Some resemble cones, others nuts and fruits, and those due to *B. duplex* are not unlike leaves, and are occasionally supported on stalks, often sessile upon the branches, twigs, or leaves from which they spring. These abnormal members of an aberrant group like the Coccidæ should repay further study.—*Nature.*

Nervous Diseases.—

Diseases of this character are upon the increase, and consequently the pharmacist presents a multiplicity of remedies termed nerve tonics which were not known to the profession a generation ago. The cause of this condition is an abuse of food as well as abuse of drugs. The ordinary food products present all the elements needed for the human body, but unfortunately during the last few years the phosphates, the most important elements of food for the nervous system and for bone structure, have been removed from the wheat by the new process of milling. The demand for white flour has resulted in the miller providing starch, while the phosphates and gluten are fed to horses and hogs. Nutrition has been sacrificed for æsthetics, with the result that the growing generations possess badly developed skeletons, poorly

nourished brains and nervous systems, and decaying teeth. There is an attempt to supply the demand for nerve food in a multiplicity of drugs, until there is now presented an endless list of phosphates, hypophosphites, and phosphorous preparations *ad infinitum* (and oftentimes *ad nauseam*) to supply what nature has given, but what man in his egotistical wisdom has taken away.—GRAHAM.

Just the Thing.—

An English journal tells of an amusing rebuke administered to a sharp bargainer, one of those persons who always wish to get more than their money's worth. The offender in the present instance was a woman, who sent the following advertisement to a London paper:

A lady in delicate health wishes to meet with a useful companion. She must be domestic, musical, an early riser, amiable, of good appearance, and have some experience in nursing. A total abstainer preferred. Comfortable home. No salary.

A few days afterward the advertiser received by express a basket labeled: "This side up—with care—perishable." On opening it she found a tabby cat, with a letter tied to its tail, that ran thus:

MADAM: In response to your advertisement, I am happy to furnish you with a very useful companion, which you will find exactly suited to your requirements. She is domestic, a good vocalist, an early riser, possesses an amiable disposition, and is considered handsome. She has had a great experience as a nurse, having brought up a large family. I need scarcely add that she is a total abstainer. As salary is no object to her, she will serve you faithfully in return for a comfortable home.

—*The Youth's Companion.*

Miniature Bovines.—

One of the greatest curiosities among the domesticated animals of Ceylon is a breed of cattle known to the zoölogist as the sacred running oxen. They are the dwarfs of the whole ox family, the largest specimens never exceeding thirty inches in height. One sent to the Marquis of Canterbury in the year 1891, which is still living and believed to be somewhere near ten years of age, is only twenty-two inches high and weighs but 109½ pounds. In Ceylon they are used for quick trips across country with express matter and other light loads, and it is said that four of them can pull the driver of a two-wheeled cart and a 200-pound load of miscellaneous matter sixty to seventy miles a day. They keep up a constant swinging trot or run, and have been known to travel one hundred miles in a day and night without either food or water. No one knows anything concerning the origin of this peculiar breed, but they have been known on the island of Ceylon and in other Buddhistic countries for more than a thousand years.—*Information.*

Curious Prehistoric Monkeys.—

In several places in the Cape Colony and Orange Free State of South Africa, caves have been explored which yielded hundreds of mummified remains of a queer species of six-fingered monkey. All of the full-grown specimens of this remarkable race have the tail situated high up on the back, from three to five inches further up than on the modern monkey—and other distinguishing marks, such as two sets of canine teeth, beards on the males, etc. Whether these were mummified by human beings, who formerly held them in reverence, or were overtaken by some catastrophe, such as a sudden convulsion of nature, or a cataclysm which entombed them in their caves and thus preserved them, is a secret that can never be known.—*Science News.*

What We Teach.—

We teach the children Danish,
Trigonometry and Spanish;
Fill their heads with old-time notions,
And the secrets of the oceans,
And the uniform inscriptions
From the land of the Egyptians;
Learn the date of every battle,
Know the habits of the cattle,
Know the date of every crowning,
Read the poetry of Browning
Make them show a preference
For each musty branch of science;
Tell the acreage of Sweden,
And the serpent's wiles in Eden;
And the other things we teach 'em
Make a mountain so immense
That we've not a moment left
To teach them common sense.

—*London Standard.*

The Cocaine Trade.—

Four thousand seven hundred and sixteen kilogrammes of crude cocaine were exported from Peru in 1894—an almost astonishing amount.—*Meyer Brothers Druggist.*

In Re the House Fly!—

An "eminent," etc., says that house-flies and the like are "carriers of disease." If he will tell us how to suppress them, all men will bless him.—*Exchange.*

Very True!—

The Paris physician has only himself to blame for loss of patronage by constantly "supporting Pasteur laboratories, and the like."—*Medical Record.*

Book Reviews.

INCENDIARISM. By W. H. Leahy. Cloth; 12mo; pp. 412. Price, $1.00. Rand, McNally & Co., Chicago and New York.

This tale won the fourth prize in the *Chicago Record's* competition for "stories of mystery." The plot presents many elements of novelty, and the narrative as a whole is an interesting one. A young man leaves a house a few minutes before a fire breaks out, and he is accused of incendiarism, which is the more terrible inasmuch as it is coupled with the charge of murder—several lives having been lost. Incidentally a shrewd Jewish lawyer undertakes his defense, and in the trial it appears that a cousin was also in the house unknown to any one at the time the fire broke out. Eventually it is supposed the conflagration was the result of concentration upon the paper in a waste-basket of the rays of the sun by means of cataract lenses The details of the plot are well worked out, exceedingly thrilling, and the more remarkable inasmuch as no hint of the climax is had until the very last.

THE FASCINATION OF THE KING. By Guy Boothby. Cloth; 12mo; pp. 288. Price, $1.00. Rand, McNally & Co., Chicago and New York.

The author is evidently a tyro at fiction. The plot is large but the execution imperfect—not half filled out. The spirit of a good novel is to keep within the range of both probability and possibility, which is not the case here. And yet the tale is an interesting one in spite of all its crudeness. The hero is a European who has become king of a province contiguous to the European territories in Cochin China. His throne is threatened by the machinations of the Chinese on the one hand and of the French on the other. He marries the sister of an English lord, and in turn the English lord marries the sister of the king. Statecraft, war, yacht cruising, etc., make up the total. It is a capital book with which to while away an hour, but it leaves nothing to be recalled or thought over.

REPORT OF THE UNITED STATES COMMISSION OF FISH AND FISHERIES FOR 1895. Cloth; 8vo; pp. 590. The Government Printing Office, Washington.

The volume before us well keeps up the reputation of its predecessors. There is not only a report upon the "Propagation and Distribution of Food Fishes," upon the "Division of Statistics and Methods of the Fisheries," but also an "Inquiry Respecting Food Fishes and Fishing Grounds."

The balance of the volume, some 460 pages, is devoted to a report upon "The Investigation of the Albatross for the Year Ending June 30th, 1895;" Notes on "Biscayne Bay, Florida," with reference to its adaptability for a marine hatching and experimenting station; "Transplanting of Eastern Oysters to Willapa Bay, Washington;" "Description of a New Species of Shad from Alabama," and finally, a most thorough and complete "Check-list of the Fishes and Fish-like Vertebrates of North and Middle America," by David S. Jordan and Barton W. Everman.

THE LIVING AGE. Price, 10 cents; $6.00 per year. The Living Age Company, Boston.

There is no magazine which can take the place of this for American readers who have not ready access to the great bulk of the European periodical press. The whole world of literature is the field of this journal, and its readers get the best that the world offers. The publishers now announce the purchase of the serial rights to "In Kedar's Tents," by Henry Seton Merriman, author of "The Sowers." This is an attractive story of adventure in Spain during the Carlist war that is not alone full of incident, but contains many very clever character sketches. Mr. Merriman's style, as our readers doubtless well know, is direct and forcible, and his humor delightful. Those who are weary of the morbidly introspective in fiction will find Mr. Merriman's work most refreshing. The first chapters appeared April 3d; the serial will continue through fifteen numbers. Also in the early April issues will be a paper from Mr. Gladstone on the "Eastern Question;" "Literary Recollections," by Max Müller; "The Cretan Question," by Francis de Pressense; and "Autobiography of Gibbon," by Leslie Stephen. With the first April issue also is the beginning of the new (213th) volume.

THE MIDLAND MONTHLY. Price, 15 cents; $1.50 per year. Johnson Brigham, Des Moines, Iowa.

The April issue opens with a contribution by J. H. Keeley, entitled "On the Eastern Edge of the Andes;" "Living Homes under the Sea" is by C. F. Holder; "The Valley Beautiful," by H. A. Crafts; "Across Country in a Van," by Mary A. Scott; "Grant's Life in the West and His Mississippi Valley Campaigns" (continued), by J. W. Emerson; "How to Relieve the Poor and Prevent Poverty," by Ada K. Terrell; "A Night of Peril," by Elizabeth H. Calvert; "Shadows at Spotsylvania," by Malinda C. Faville; "The Wraith of Joe Atley," by John Madden; "My Doris," by Alice H. Rich; "A Journalistic Experience," by Howard Tedford; "A Plea for the Village Improvement Club," by Jessie M. Thayer; "Our Later Literature and Robert Browning," by L. W. Smith.

THE ECLECTIC MAGAZINE. Price, 45 cents; $5.00 per year. E. R. Pelton, New York.

The March number is one of the most valuable of the year. "Twenty Years of Reviewing" is by George Saintsbury; "A Brilliant Irish Novelist" (Carleton), by G. B. Smith; "The March of the Advertiser," by H. J. Palmer; "The Political New Year," by E. J. Dillon; "The Individual Always the Unit," by Horace Seal; "The Blight on the Drama," by William Archer; "Hampton Court in Bygone Years," by Mrs. R. C. Boyle; "The French in Madagascar," by F. A. Gregory; "Chinese Humbug," by E H. Parkes; "Gold Beads," by Mary H. Taylor; "Recent Science," by Prince Kropotkin; "Pages from the Diary of Parson Parlett," by R. Pardett. The anonymous papers are "Mollie Maguires," "Jóe Reggelt," "Thomas Hood," and "A Parson of the Last Century."

THE CENTURY. Price, 35 cents; $4.00 per year. The Century Co., New York.

The chief articles in the April issue are: "Old Georgetown," by J. W. Palmer; "The 'Cello," by Meredith Nicholson; "General Grant at the Bonanza Mines," by F. D. Grant; "Campaigning with Grant," by Horace Porter; "Sunny Harbor or Stormy Sea," by Ella G. Ruddy; "Hugh Wynne, Free Quaker" (VI), by S. W. Mitchell; "Wheeling in Tyrolean Valleys," by G. E. Waring, Jr.; "By Contraries," by Edith M. Thomas; "The Days of Jeanne D'Arc" (I), by Mary H. Catherwood; "New Conditions in Central Africa," by E. J. Glave; "The Fall of the House of Robinson," by Annie S. Winston; "The Red Columbine," by Elizabeth Akers; "Thackeray in Weimar," by Walter Vulpius; "Nancy," by John S. Wood; "General Grant's Most Famous Despatch," by G. W. Grannis; "A Veto by Grant," by John A. Kasson; "The Miracle of the Greek Fire," by Richard W. Gilder. There are the usual departments.

OUTING. Price, 25 cents; $2.50 per year. The Outing Publishing Company, New York.

The April number easily maintains the foremost position among publications devoted to sports and pastimes. Beautiful illustrations and many seasonable sketches of sport, travel and adventure in all parts of the world give the needful variety to a most acceptable number. The contents are: "Western Yachts and Designers," by Arthur J. Pegler; "Housekeeping in Venice," by Theodore Purdy; "The Bloodhound and His Training," by A. P. Poore; "Likuku," by May D. Hatch; "A Modern Kite and Government Experiments," by H. C. Hunter; "Goose Shooting on Cascumpec Bay," by R. R. Fitzgerald; "An April Morning" by C. F. Middlebrook; "Awheel Through the Tidewater of Virginia," by J. B. Carrington; "Doña Concepcion," by Major John Brook; "National Guard of Maine," by Captain C. B. Hall; "In Stable and Pasture," by E. B. Abercrombie; and the usual editorials, poems, records, etc.

THE COSMOPOLITAN. Price, 10 cents; $1.00 per year. The Cosmopolitan Publishing Co., Irvington, N. Y.

The April issue contains a paper upon "Modern Greece," by Charles E. Lloyd; "A Royal Family," by Eleanor Lewis; "The War of Worlds," by H. G. Wells; "Circumstances," by A. Cahan; "College Fraternities," by P. F. Piper; "A History of the Lady Betty Stair," by Mollie E. Seawell; "Delaware's Abolition of the Whipping-Post," by Bianaca A. Miller; "An Arab Fête in the Desert," by Gertrude B. Tredick; "Women Speakers in England," by Frederick Dolman; "Modern College Education," by John B. Walker; "In the World of Art and Literature," by I. Zangwill. There are the usual departments and poetry.

THE BRITISH GYNÆCOLOGICAL JOURNAL. Edited by F. F. Schacht, M.D. Price, 3s. 6d. per copy. John Bale & Sons, London, England.

The principal papers in the quarterly issue for January, February and March are: "Mixed-cell Sarcoma of the Bladder," by H. Macnaughton Jones; "The Latent Gout of the Menopause," by W. M. Armstrong; "A Fibro-Myoma Removed by Pan-Hysterectomy," by F. A. Purcell; "Remarks Suggested by Four Recent Hysterectomies," by George Elder; "Fibro-Myomatous Uterus Removed by Doyen's Method of Pan-Hysterectomy," by F. Edge. There are the usual Communications, Reviews, Editor's Report, Reports of Societies, Obituary, Summary of Gynæcology, including Obstetrics, Editorial, etc.

THE CANADIAN MAGAZINE. Price, 25 cents; $2.50 per year. Ontario Publishing Co., Toronto.

The April issue opens with a paper by S. J. McLean on "Social Amelioration and the University Settlement;" "My Contemporaries in Fiction" (V) is by David Christie Murray; "Nansen," by Fritz Hope; "Easter in Paris," by Mrs. Emily Crawford; "By Niagara Banks," by J. W. Dafoe; "Le Treiziéme," by Richard Gornalle; "A Mountain Picnic in British Columbia," by H. H. Gowen; "Alexander McLachlan," by Donald McCaig; "The Indian Plague," by John Ferguson; "The Militia Medical Service," by W. Tobin; "The Millionth Woman," by Dorothea Dale; "Victoria Day," by G. E. McCraney. There are the usual departments.

GODEY'S MAGAZINE. Price, 10 cents; $1.00 per year. The Godey Company, New York.

The principal articles in the April issue are: "Beautiful Women," by Caldwell Sherman; "Common Sense in Rose Culture," by Eben E. Rexford; "The Daly Stock Company," by Beaumont Fletcher; "The Development of the Reed Organ," by Rupert Hughes; "Edelweiss," by F. W. Wendt; "Old-Time Easter," by Gabrielle M. Jacobs; "The Uncommon Experience of a Common Girl," by Everett McNeil; "The Bicycle of Ninety-seven," by Marmaduke Humphrey; "Undressed Kids," by C. A Mera; "Women of Mark" (II), by Carolyn Halsted; "Susie," by Kathleen Blackburn. There are the usual departments.

AMERICAN KITCHEN MAGAZINE. Price, 10 cents; $1.00 per year. The Home Science Publishing Company, Boston.

The principal papers are: "Traditions and Customs Concerning Bread and Cakes," by Cornelia C. Bradford; "The Tale of a Yeast Cake," by Helen Campbell; "A Trip to Jamaica," by Grace D. Bachelder; "The Chemistry of Cooking and Cleaning," by Ellen H. Richards and Maria Elliott; "The Ethics of Pots and Pans," by Virginia Q. McNealus; "A Lady of the Olden Time," by Pamela McA. Cole; "Health Study—What is It?" by Margaret Lindley; "Doughs," by Anna Barrows; "House Help," by Lena S. Peck. There are the usual departments.

LIPPINCOTT'S MAGAZINE. Price, 25 cents; $3.00 per year. The J. B. Lippincott Co., Philadelphia.

The complete novel in the April issue is "Ray's Recruit," by Capt. Charles King; "Oyster-Planting and Oyster-Farming" is by C. D. Wilson; "Two Chinese Funerals," by Veulah C. Gronlund; "Joe Riggler's Romance," by Elsie A. Robinson; "Animal Cannoneers and Sharpshooters," by James Weir, Jr.; "Matrimonial Divinations," by Alice M. Earle; "A Glimpse of Old Philadelphia," by Emily P. Weaver; "Politics on the American Stage," by J. Harry Pence; "A Plea for Our Game," by Fred. C. Mathews; "The Gentle Art of the Translator," by Caroline W. Latimer.

APPLETON'S POPULAR SCIENCE MONTHLY. Price, 50 cents; $5.00 per year. D. Appleton & Co., New York.

The principal articles in the April issue are. "How Can the Federal Government Best Raise its Revenue?" by David A. Wells; "Stability of Truth" (concluded), by D. S. Jordan; "Racial Geography of Europe,—Blondes and Brunettes," by W. Z. Ripley; "Reversions in Modern Industrial Life," by Franklin Smith; "Life on the Planets," by M. J. Janssen; "Spencer and Darwin," by Grant Allen; "Ants as the Guests of Plants," by M. Heim; "The Language of Crime," by A. F. B. Crofton. There are the usual departments.

THE AMERICAN ANTIQUARIAN AND ORIENTAL JOURNAL. Price, $1.00; $4.00 per year. Stephen D. Peet, Good Hope, Illinois.

The January issue of this bi-monthly presents an exceedingly valuable table of contents Lewis Gunckel writes of "The Numeral Signs of Palenque Tablets;" D. G. Brinton of "American Stringed Musical Instruments;" J. Crawford of "Names and Status of the Amerrique People;" Stephen D. Peet of "Arrow-heads and Banner-stones;" William Winslow of the "Temple of Queen Hatsu at Thebes." There are also exceedingly interesting notes— Egyptological, Bibliographical, Ethnographical, Polynesian, Literary, and otherwise.

ST. NICHOLAS. Price, 25 cents; $3.00 per year. The Century Co., New York.

The principal articles in the April issue are: "Moses," by Wolcott Le Clear Beard; "The Last Three Soldiers" (X–XI), by W. H. Shelton; "Seeing and Believing," by Harold Wilson; "Silk and Cedars," by Harry Fenn; "Master Skylark" (XVII–XIX), by John Bennett; "The Lights that Guide in the Night," by Lieutenant John M. Ellicott; "Miss Nina Barrow" (V–VI), by Frances C. Baylor; "The Jungfrau Tunnel," by F. W. Wendt; "The True Story of Marco Polo" (conclusion), by Noah Brooks; "The Horseshoe of Luck," by R. F. Bunner. There are the usual departments.

HOME AND COUNTRY. Price, 10 cents; $1.00 per year. Monthly Illustrator Publishing Co., New York City.

In the April issue H. H. Lusk writes of "Ultima Thule;" "Whist and its Masters" (IX) is by R. F. Foster; "With the Artists," by C. H. Israels; "On the Yeovil Road," by Frances E. Clevy; "Easter Week in Three Holy Cities," by R. R. Wilson; "Flash-lights of Foreign Travel," by Bianca A. Miller; "Carita: A Cuban Story," by L. Pendleton; "The Era of Irrigation," by Joel Shoemaker; "For Her Own King," by H. M. Hoke; "The Drama," by Robert Stodart; "Between Two Covers," by Clifton Harby.

DONAHOE'S MAGAZINE. Price, 25 cents; $2.00 per year. Donahoe's Magazine Co., Boston.

The April number has an interesting table of contents. "Joan of Arc" is by Beatrice Sturges; Doctor J. J. Mangan writes of James Clarence Mangan; Reverend D. F. McCrea gives a graphic sketch of the "Giant's Causeway;" "Investigating the Trusts" is by James E. Wright; "Cardinal Fesch," by James Clarkson; "Rome's Monument to Leo XIII," by M. R. Taylor. The short stories and etchings are unusually good, "Manuelita," "Easter Lilies," and "The Legend of the Eglantine" being particularly pleasing.

THE OSPREY. Price, 10 cents; $1.00 per year. The Osprey Company, Galesburg, Illinois.

The March number contains: "Major Charles E. Bendire," by F. H. Knowlton, Ph.D.; "Nansen's Discovery of the Breeding Grounds of the Rosy Gull," by Doctor T. S. Palmer; "Louis Agassiz Fuertes," by Doctor Elliott Coues; "Club Grounds or Bird Reserves," by Otto Widmann; "Flicker Flirting," by J. N. Baskett; "A Peculiar Hybrid," by C. L. Webster; "Infertile Eggs," by Reverend P. B. Peabody; "Nest Building of the Downy Woodpecker," by Arthur M. Farmer. There are the usual departments, notes, and comments.

SCRIBNER'S MAGAZINE. Price, 25 cents; $3.00 per year. Charles Scribner's Sons, New York.

Contents for April: "William Quiller Orchardson, R. A.," by Cosmo Monkhouse; "The Art of Travel," by Lewis Morris Iddings; "Soldiers of Fortune" (IX–XI), by Richard Harding Davis; "A Roman Easter," by A. F. Gorguet; "The Maryland Yellow-throat," by Henry Van Dyke; "The Oak-dwellers," by C. D. Lanier; "The Story of a Play" (IV–VII), by W. D. Howells; "London" (III), by C. D. Gibson; "Odysseus and Trelawny," by F. B. Sanborn. There are the usual departments.

THE METAPHYSICAL MAGAZINE. Price, 25 cents; $2.50 per year. Metaphysical Publishing Co., New York.

In the April issue are: "Occult Science and Occult Wisdom," by F. Hartmann; "The Kingdom of Heaven," by Charles Johnston; "Plato on Immortality," by M. T. James; "The Voice of Psychic Force," by Shelby Mumaugh; "Political Equality," by J. R. Richardson; "The Inner Light," by E. A. Pennock; "The Transcendental Ego," by A. L. Markle; "Hindu Deities and Cosmic Law," by Madam Olivia.

REVIEW OF REVIEWS. Price, 25 cents; $2.50 per year. Review of Reviews Co., New York.

The special features for this month may be named as "A Study of the New Administration at Washington," by Albert Shaw; "Public Work Directly Performed," by Sylvester Baxter; "Cleaning Streets by Contract," by George E. Hooker; "National Jewish Educational Work," by C. S. Bernheimer; and "Elements in the Choice of a College," by Charles F. Thwing. In "The Progress of the World" the tariff bill and other topics of interest are discussed.

THE PHRENOLOGICAL JOURNAL. Price, 10 cents; $1.00 per year. Fowler & Wells Company, New York.

In the April issue there is a "Personal Observation of Herbert Spencer," "Mrs. Oliphant," and "Doctor A. Conan Doyle," by Jessie A. Fowler; "Phrenotype of Helen Keller," by H. S. Drayton; "The Organ of Consciousness or Conscience," by William Brown; "Composing Before or at the Time of Writing," by E. E. Benton; "Science Notes," by H. F. Brown. There are the usual departments.

Therapeutic Brevities.

Chronic Duodenal Indigestion. — Doctor John B. Shober, of Philadelphia, contributes an article on this subject to the *Medical and Surgical Reporter.* Chronic duodenal indigestion is a frequent disease of childhood; it rarely occurs in infancy, but is usually met with between the third and seventh years; it is almost invariably caused by the administration of food unsuited to the age and digestive capabilities of the child, or of food which is digestible but which is given too frequently or in too large amounts.

Children between four and six years of age are frequently allowed meat two or three times a day in addition to vegetables, eggs, milk, puddings, and pastry. Is it any wonder that under such diet the little one begins to have attacks of indigestion with gastric and abdominal pain, accompanied by vomiting and diarrhœa? During the attack the daily diet is necessarily stopped, and the mother fears that her child is being starved when, by the direction of the physician, small quantities of milk and broth are ordered for a few days. As the attack is over she again begins to "feed the child up" in order to make up lost time. Soon another attack comes on, which is relieved in the same way, and the trouble begins over again, to be repeated *ad infinitum.* Finally the mother becomes discouraged, because her child does not thrive in spite of all care. She endeavors to regulate the food by forbidding eating between meals candy, sweets, and pastry, but still allows meat, rich milk, eggs, jellies, etc., and is surprised and worried that the tongue is always coated, the breath heavy, and the bowels either costive or loose. Dark rings appear under the eyes; the child catches cold easily; is always peevish and fretful, and does not gain weight; the skin is dry; patches of eczema are not unusual; the abdomen is distended and highly tympanitic; there may be no seat of tenderness on palpation, yet the liver is often congested, as shown by a slightly increased area of hepatic dulness. The most characteristic sign of the existing condition, however, is the character of the movements, which are highly offensive, often clay-colored, and contain quantities of mucus.

The temperature during an acute attack is usually elevated—101° to 102.5°—but subsides after the bowels have been opened by castor oil or small doses of calomel. Between attacks the temperature is usually normal, but may remain at 99° or 99.5° for many days at a time. There is no well recognized pathologic lesion. The mucous membrane of the duodenum is either hyperæmic or congested. By reason of this congestion, or perhaps owing to a plug of mucus in the orifice, the common bile-duct cannot discharge the bile into the intestine, hence clay colored stools and the mild hepatitis.

The treatment of chronic duodenal indigestion is essentially by diet. Drugs are useful only as a means of relieving constipation or checking diarrhœa. As a stimulant to digestion small doses of tincture of nux vomica should be administered after each meal, and when the diet is increased and becomes more liberal much benefit may be obtained from administration of taka-diastase in two and one-half grain doses after each meal. By the aid of this remedy the digestion of the starch element of the food is accomplished most satisfactorily, and should be continued for a few weeks after the child is placed on a liberal diet and is apparently cured.

As relapses in this disease frequently occur, the greatest care should be exercised in regulating the diet for several months after apparent recovery. — SHOBER, in *Philadelphia Medical and Surgical Reporter.*

Treatment of Hallux Valgus.—This affection is especially frequent in women. At the onset of the affection the patient should wear broad shoes, and introduce a small cotton-wool pad between the first and second toes; the head of the metatarsal bone should be protected at the inwardly projecting spot by cotton or a corn-plaster. At a more advanced stage, when the deviation has already become marked, it may be counteracted by orthopædic apparatus, though such is usually badly borne and frequently useless. Generally speaking, operation is indicated in cases in which walking is greatly interfered with and there is severe pain, especially when the patient is still young. In hallux valgus complicated by suppurative arthritis with necrosis of the ends of the bones, the articular surfaces should be resected or even (if there are serious lesions of the metatarsal bone and proximal phalanx of the big toe) the toe amputated, with more or less extensive resection of the head of the metatarsal bone. For the treatment of simple hallux valgus, resection of the joint should be limited to the diseased end—that is to say, the head of the metatarsal bone. The bunion and subjacent bursa mucosa are first removed by means of an oblong incision; then with a sharp bone-forceps the head of the metatarsal bone is resected in an oblique direction outward and

forward—*i.e.*, inversely to the tendency toward deviation. Should the deviation be too pronounced after the operation, a plaster-of-Paris apparatus is applied with the usual dressing, which otherwise, and as a rule, is sufficient for all purposes. In certain cases of very marked deviation, it is impossible to reduce after resection. Under such conditions the obstacle will be found to be the tendons of the abductors, which consequently must be divided at the point of their attachment to the phalanx.—DUPLAY, in *Medical Week*.

Pilocarpine Externally in Nephritis.—In 1894 Molliére first recommended this drug in nephritis, employing with friction of the entire dorso-lumbar region in an ointment composed of three ounces of vaselin and three-quarters of a grain to a grain and a half of pilocarpine. The region is afterward covered with a layer of cotton or waxed linen, which is held in place with bands of tarlatan. The frictions are made every morning and the covering remains on during the day unless it inconveniences the patient too much; this, however, is very rare.

More than eighty patients with acute nephritis due to cold, or infectious nephritis, or chronic nephritis, were subjected to this treatment. Complete recovery occurred in the first set, and a rapid and lasting disappearance of the acute symptoms in the second was invariably observed. A remarkable symptom observed in the majority of cases was an energetic diaphoresis, which remained excessive in a large number of cases while the treatment lasted. The albumen often disappeared from the urine and always diminished; at the same time elimination was effected with remarkable intensity and the symptoms yielded with the greatest rapidity; the œdema disappeared; the dyspnœa gave place to normal respiration; and the minor symptoms very soon passed away. Numerous experiments have demonstrated the specific properties of pilocarpine employed in this way, and the results obtained should not be imputed to the cutaneous excitation produced by the frictions or to the heat caused by the layers of cotton.—*Lyon Médical*.

Cystitis in the Female.—Remove any discoverable source or sources of irritation which act through the medium of the urine; considerable benefit may be had from a milk diet and discontinuance of the use of acids, pepper, etc.; any mechanical source of vesical irritation should receive appropriate treatment:

The urine should be rendered bland by milk diet, the ingestion of considerable quantities of water, the administration of potassium citrate if too acid, or of boric acid and salol if alkaline:

Pelvic congestion should be relieved by hot vaginal douches, placing the patient in the knee-chest position, and the correction of constipation:

The inflamed cystic mucous membrane may be relieved by the administration of boric acid, santal oil, copaiba, or creosote by mouth; or the use of injections of boric acid or nitrate of silver in suitable strengths:

The patient's general health should be improved by tonics, etc.:

Rest in bed, especially in all acute cases, is absolutely imperative.

While advocating direct local treatment for cases of cystitis which do not respond to ordinary therapeutics I advise it should be employed with judgment and caution.—HERSLER, in *Medical Review of Reviews*.

Comedones.—Blackheads are not necessarily, as generally thought, dust or dirt accumulated in the pores, but the fatty secretions of the skin and a coloring matter. The following may be recommended for their removal:

Kaolin, 4 parts.
Glycerin, 3 parts.
Acetic acid, 2 parts.
Perfumed oil, sufficient.

Apply at night and also several times during the day, if possible. The blackheads will disappear when washed with this mixture and rubbed freely with a towel moistened with it, or can easily be removed after a few days.—JULICHS.

***

Apply night and morning as an ointment composed of one drachm each of ichthyol, bismuth subnitrate and ammoniated mercury in ten drachms of vaselin.

Whooping-Cough.—Introduce into the back of the mouth a small tampon of cotton saturated with a one-to-1000 solution of corrosive sublimate, and press it against the lower part of the tongue in such a way that the liquid will bathe the epiglottis and the neighboring mucous membrane. By this means thirty-five of seventy-one cases were permanently relieved after from three to twelve applications, and thirteen considerably ameliorated. One of the greatest benefits derived is rapid cessation of vomiting. The patients lend themselves very readily to the treatment and become rapidly accustomed to the introduc-

tion of the tampon. Never more than one application the same day. In a very small number of cases temporary disturbances were observed, such as hæmorrhages of the conjunctiva and of the ear, buccal ulcerations, and slight fever, but these are not serious; in fact, children tolerate mercury easily.—RABINCHEK, in *Bulletin Médical de Paris.*

Ingrowing Toe-nail.—Apply every day a fifty-per-cent. solution of perchloride of iron. Direct patient to take daily foot-baths, and when this softens the skin and washes out the pus which has formed, the side of the nail as well as the groove made by the pressure of the nail should be stuffed with cotton soaked in the perchloride solution. The same operation is repeated twice daily, care being taken to remove the blackened crust that forms. When this is done the toe is to be enveloped in a light dressing. During the first few days the patient should remain in bed. About the tenth day the granular mass disappears, the cavity of the ulcer is cleansed and presents a uniform surface, the end of the nail separates from the skin, and in twenty days the patient is cured. To avoid a relapse it is necessary to separate the nail from the skin with a little cotton steeped in perchloride solution. — *Gazette Médicale de Liége.*

A Substitute for Cod-liver Oil.—Although children take cod-liver oil much more readily than adults, one occasionally encounters patients with whom it does not agree. It is of interest, therefore, to note the results of a trial made by Noorden in the Frankfort City Hospital of sesame oil, which is of a bright golden-yellow color, odorless and tasteless, or nearly so. In only one of several hundred cases was it necessary to discontinue because of vomiting and diarrhœa. Most of the children were scrofulous or suffering from debility following some one of the acute infectious diseases. In all, with the one exception, marked and rapid improvement followed. The usual dose was two or three tea- or tablespoonfuls a day, according to age, and not infrequently double this amount was given. The cost of the oil is about thirty cents a quart.—*Pædiatrics.*

Fish-bones in the Pharynx.—Fish-bones in the pharynx almost invariably insert themselves in the lateral walls, a little above the aryepiglottic fold:

They are usually thin, short bones with sharp ends:

Are usually driven deeply into the tissues:

Inspection by means of the laryngoscopic mirror is not, as a rule, successful:

They should be located by digital examination, the throat having been rendered insensible by cocaine.

The easiest way of extraction is by means of a Toynbee polypus forceps (or a forceps of a similar curvature), the point of which should be guided along the index of the exploring hand, the tip of that index to be in touch with the foreign body.—*Medical Herald.*

Epistaxis.—Direct the patient to keep his mouth wide open and breathe through it more deeply and rapidly than normal, even up to thirty respirations per minute. When he tires of rapid breathing he may breathe naturally for a few minutes and then, if necessary, breathe rapidly again. The mouth is to be kept constantly open and any blood flowing into the pharynx swallowed. Finally the patient is told to enunciate the broad *a* ("ah") with each respiration, so that the soft palate may come in contact with the posterior wall of the pharynx. Ten drops of hydrastis canadensis given in water every two or three hours is a valuable remedy also. —KOHN, in *Medical Record.*

Atropine not a Respiratory Stimulant.—Unverricht denies the generally accepted doctrine that atropine stimulates the respiratory function, and asserts that his investigations prove that morphine and atropine do not antagonize one another in their action upon respiration. Atropine can induce Cheyne-Stokes breathing, which is not regarded as an evidence of respiratory stimulation. His experiments show that the action of the drug on respiration is essentially depressing, and that in three cases of poisoning the only symptom which caused any anxiety was the profound disturbance of the mechanism of respiration. —*British Medical Journal.*

Potassium Iodide in Gall-stones. — This remedy has been employed in one hundred cases of biliary calculus during the past four years, with the best results, not in those where there were merely rare attacks of extremely violent hepatic colic, but in which the patients were more or less constantly troubled with hepatic pain, and where the liver was sensitive to the touch. The favorable effect of the iodide is usually manifested in a week.—DUNIN, in *University Medical Journal.*

Trephining.—My experience suggests the "bull" that in "*trephining*" for depressed compound comminuted fractures *never use a trephine.* The instruments usually necessary are a knife, a pair of blunt-pointed scissors, a chisel, a good, sharp, strong Hopkins rongeur, two or three bone-forceps with different curves, an elevator, two thumb forceps (one rat-toothed), a half-dozen hæmostatic forceps, small and medium-sized curved needles, a good needle holder, small and medium silk, silkgut and catgut for sutures and ligatures. The small needles should be previously threaded and ready for instant use.—ESTES.

Acne.—When accompanied by constipation the following aperient will often prove satisfactory:

℞ Sulphate magnesia, 1 ounce.
Dried sulphate of iron, 30 grains.
Sodium chloride, 10 grains.
Diluted sulphuric acid, 1 drachm.
Infusion of quassia, to make 4 ounces.

A tablespoonful in a tumbler of water before breakfast.

It is important that the full quantity of water be taken, as the volume of fluid influences the action of the remedy.—*Louisville Medical Monthly.*

For Threatening Baldness.—

Quinine muriate, 1 drachm.
Tannic acid, 2 drachms.
Alcohol (70 per cent.), 1½ pints.
Tincture cantharides, 2½ drachms.
Pure glycerin, 1½ ounces.
Cologne water, 10 drachms.
Vanillin, 2 grains.
Pulverized sandalwood, 1 drachm.

After being well mixed and shaken, allow the mixture to stand for four days, then filter. Rub into the scalp daily.—*Revue de Thérapeutique.*

Arsenic in Nervous Gastralgia.—The best treatment for purely nervous gastralgia—characterized by pain when the stomach is empty, which is immediately relieved by the ingestion of food—consists in the internal administration of arsenic, which should be given three times daily between meals, and continued for several weeks. In grave cases this treatment should be associated with the application of derivatives to the epigastrium. With regard to the food of the patient a mixed diet is preferable to a *dyspepsia* regimen.—SIR JAMES SAWYER.

Vehicle for Castor Oil.—A new method of dispensing this medicament is to mix with milk, in the proportions respectively of half an ounce of the oil to a glassful of the vehicle, and heat with constant stirring; in a few minutes a perfect emulsion is had, to which is then added a little syrup of orange flowers. Another method is to shake the oil with porter in a bottle, or mix the two in a jar with a rotatory motion. The latter is said to yield a mixture very agreeable to the palate.—*Pharmaceutische Centralhalle.*

Chapped Hands.—

℞ Menthol, 10 grains.
Olive oil, 20 minims.
Salol, 20 grains.
Wool-fat, 12 drachms.

Apply to the affected parts twice a day.

—*Atlanta Medical and Surgical Journal.*

Worth Remembering.—Never perform an operation without examining the urine for sugar, no matter what its specific gravity may be. If glycosuria exists antiseptic precautions should be redoubled, but the condition does not contraindicate necessary surgical interference.—*Medical Times.*

Cataract.—Mercer, of Port au Spain, claims to have cured several cases of cataract with *Cineraria maritima.* Others claim to have tried this remedy with like results.—*Medical Recorder.*

Hæmorrhoids.—A simple and effective treatment for itching piles is said to be the application once daily after defæcation of a few drops of collodion on absorbent cotton.

For Red Noses.—The *Revue Chirurgie* states that spraying with a five-per-cent. solution of boric acid is an effectual nose bleach.

[Just the same, we doubt.—ED.]

Thrombosis.—An ointment of belladonna and mercury, equal parts, is useful to relieve the pain if applied over the course of the vein.—*College and Clinical Record.*

Cocaine as a Local Anæsthetic—If the solution of this salt is warmed before using, its anæsthetic effect is more rapid, more intense, and more permanent.

Medical Progress.

Fetich Worship in Aseptic Surgery.—As everybody knows, certain tribes in Africa are addicted to fetich worship. Any material object which catches the eye, or in any way sharply arrests the attention of the savage, becomes for the time being "fetich" to him. He considers it in the light of a god, and invokes its aid. A tree, a stone, a bit of bark, a feather—anything will do. If the prayerful worship of the fetich produces no results, then the worshiper curses it, jumps on it, spits on it. It is, therefore, obviously an utterly senseless and wholly superstitious cult.

It constantly happens that, being in want of an instrument during an operation, I call for it. A nurse or dresser at once procures it, but before handing it to me gives it a whisk through the carbolic solution in which the other instruments are lying immersed. This is done in all good faith, but it always makes me inclined to call out, "Now, no fetich, please." For it must be obvious that, if the instrument be dirty and septic, this farce of disinfecting it is mere superstition; while, if it is genuinely clean, there is no occasion for the performance at all.

At the present moment there is a good deal of fetichism abroad about instrument cases. Some six years ago I designed and got made for the Royal Infirmary (Edinburgh) what was admitted to be a very handsome and useful case. But, as it happened, the shelves were made of wood covered with thin cloth glued on to them. As a result of this it came to pass that the lives of myself and the nurse who has charge of the operating theatre were made unbearable by the comments of the advanced aseptic critic. Not long ago I showed an eminent medical writer and authority on sanitary matters round the Infirmary, and displayed to him many arrangements in the place which had cost much money and thought to perfect. He could not find much room for complaint till he came to the instrument case, when his face became radiant with satisfaction, and he called out, "What! No glass shelves? How utterly behind the time!" After which he went away, quite satisfied at having found something on which to pour out the vials of his criticism. The conclusion of the matter was that we found our visitors so distressed about our lack of glass shelves that not only have we got these, but we have lined the whole case from top to bottom and from end to end with glass. In this way we trust to stop the mouths of the priests of the glass-shelf fetich. This said case has air-tight doors, which slide up and down, and are only open when operations are in progress. Its former shelves were constantly brushed and dusted, and were scrupulously clean. That a metal instrument, having been thoroughly cleaned, could by lying on these shelves become septic was arrant nonsense, but the notion of glass shelves had a fascination for those minds who could not take in anything bigger, which was evidently overpowering.

Thirty years ago no dirtier surgeons could be found than the French and Germans. The surgical operations devised by them were often of the highest merit, but they were employed very recklessly, and they were conducted with an absolute disregard of all cleanliness. The performance of a "brilliant" operation, or the *post-mortem* verification of a diagnosis, were the objects to be aimed at; the cure of the patient was a very secondary matter. If any one doubts this, let him look at the Yellow Books of the statistics of the Paris hospitals, say about 1853, when he will find that about seventy per cent of the strangulated hernia cases died, and that it was a perfect rarity for an amputation of the thigh to recover. The pendulum has now swung to the opposite extreme, with the result that foolish works of supererogation are done in order to secure the supposed highest pitch of surgical cleanliness. The peoples of the Continent do not, in my opinion, possess the quiet judgment and mental balance of the Englishman. It is very much with their medicine as it is with their politics; the *juste milieu* is unknown to them. As Americans say, they "go the whole hog or none." And so there is now no extravagance in the matter of antiseptics which they will not entertain.

I was glad to see in a recent number of the *British Medical Journal* an article by Mr. Treves on the surgery of the peritoneum, in which he displays his usual love of sound common sense and good judgment. He says: "An operator in fishing-boots, nurses with their hands and arms wrapped up in special towels, and a hose playing about the floor of the theatre may form an impressive sight, but to what degree does it bear upon the interests of the patient? An operating theatre is no more suited to be an arena for legerdemain than it is intended to supply an object-lesson in the art of disinfection." I have heard of hospitals where sterilized air is blown into the operating theatre, and others where glass boxes have been devised in the interior, wherein the operations were done by a kind of *sacer vates* who had been previously shaved, washed, and endued with special

vestments. Doubtless many things are told to the marines, but there is enough truth in all this to show that a lot of nonsense is being perpetrated in the sacred name of Listerism.

Now, no sane person will deny that it is better to err on the side of cleanliness than to be dirty. But unfortunately there is danger in so erring, inasmuch as many persons, who are easily fascinated by display and mystery, are thereby induced to attach an exaggerated importance to matters that are really of little moment, to the neglect of more prosaic but much more important details. The "whited sepulchre" in surgery is a fatal thing. In the matter of instruments, for instance, I fully recognize danger from imperfect cleansing of them. But the danger lies almost entirely with those instruments that possess teeth and hinges. The real way to remove this danger is not to fuss about the nature of the material upon which these instruments lie in their case, but to do away with teeth and hinges. Among toothed and hinged instruments compression forceps are probably used more frequently and in greater number than any others; so a practical Englishman, Mr. Greig Smith of Bristol, has just brought out a compression forceps without teeth and with the usual arrangement by which blades can be separated, so as to admit of complete cleansing by boiling. And, talking of boiling, not long ago all sorts of expensive machines were made for sterilizing instruments, and quite an amount of ingenuity expended over them, when all that is wanted is a fish-kettle, to be had for a dollar, drainer included.

All this time much indifference is being shown to a very dangerous instrument—the apparently harmless soft catheter. I am certain I have seen many an attack of cystitis brought on by its use; and in the case of an old and feeble man, if this supervenes upon an acute stoppage from prostatic disease, his life is endangered. Looking back upon cases which occurred to me in the olden days I can distinctly see where my soft catheter wrought mischief, and the manner in which it did it is abundantly clear to me now. It was not properly cleaned.

Septic hands are naturally the most dangerous things of all, and it is curious to note how the maintenance of fresh wounds in an aseptic condition has gradually fined itself down to little more than clean hands. Soap and the nail-brush are the modern surgeon's greatest allies. I often try to make clear to the senior student the difficulty of having really clean hands, by reminding him of that abdomen which he dissected one summer, and how he washed and washed and better washed till every trace of malodor seemed gone, and how everything was well with him until after dinner, when his circulation became a little accelerated, and his hands grew somewhat warm, and then a whiff of that awful abdomen would come up and nearly turn him sick. Then I ask him to remember that that smell meant that on his hands was still remaining solid matter from that abdomen, from which distinct particles were being given off into the air. But while a surgeon may make sure of his own hands, can he always make sure of those of his assistant surgeon or house surgeon, who is probably helping him? Has the house surgeon been dabbling in the morning with dirty contused wounds and sore legs in the out-patient department? In hospitals, where very young house surgeons are constantly succeeding each other, it is most difficult always to make sure that each and every man is both conscientious and careful in abstaining from handling septic patients. And yet all the glass shelves and hoses and top-boots are of no avail against the danger imported by one dirty hand.

Again, what about beds and bedding? I am certain that these are not sufficiently looked after by surgeons. The whole course of things shows that abdominal operations will in future be undertaken by general surgeons in general wards. But in such an event there will of necessity be dangerous patients in the ward. I do not see, for instance, how we are to do away with bad burns and urinary cases. Many of these latter are dribbling away in their beds for weeks. How does the surgeon know that the sheets and blankets of such a case have been rendered surgically clean before being put under a fresh patient with a bad compound fracture? Probably he believes that there is a thing called a disinfector in the hospital, but how many surgeons will be able to say that they know all about their disinfector, and whether it really disinfects or not? Their answer is, that this is not the duty of the surgeon, but of the matron. In one sense this may be so; but if the surgeon leaves such an important matter as this in the entire control of another person, and relies implicitly upon her statement, I fear he will sometimes make a serious mistake, and find that cases go to the bad in a mysterious way after the expenditure of an infinity of pains in the operating theatre. This matter of the disinfecting of beds and bedding was first brought home to me about fourteen or fifteen years ago. Our matron (never at any time much of a sanitarian) had been ill for a

long time, and the nurses had become very careless. I had a head-nurse of a ward, in whom I implicitly believed as all that a nurse should be. We got a new matron, and one day she told me I had been utterly deceived in my head-nurse, and taking me to the beds showed me a condition of dirt and neglect which had entirely escaped my eye. How many miserable failures may not this woman's culpable carelessness have caused me? It was a lesson which I have not forgotten, and I frequently look at the bedding and make a journey to the disinfector, to see that I am not trusting to a sham.

Again, it seems to me that no sepsis can be conveyed by solid instruments which can equal in amount or intensity that which can be conveyed by sponges. From the moment the discovery was made of how to make an absorbent cotton-wool, I abandoned sponges in hospital work. Can anything be safer than "dabs" of disinfected cotton-wool enclosed in disinfected gauze? Surgeons tell me how they disinfect their own sponges, and use elaborate precautions with them so as to render them capable of being used over and over again with safety. Perhaps this may be so; but nothing will induce me to believe that this can be carried out in a large hospital, where half a dozen operations are done almost every day. It is asking too much from nurses—trying their patience and their honesty too severely. As for sponges in private practice, I see no reason why a surgeon should keep a stock. I always ask the doctor or nurse attending the patient to see that on the night preceding an operation six new surgical sponges shall be bought, thoroughly washed clean of all grit and soaked over night in 1-in-20 carbolic solution. For wounds in the groin, the neck, and the axilla, there is no first dressing equal to a couple of these sponges. I do not ask, by the way, that these sponges should repose on glass shelves in the chemists' shops before they are sold.

Turning to private practice especially, what momentous interests hinge upon the sanitary condition of the house in which a serious operation involving a large wound is to be performed. A person will live for years apparently unharmed by sewer gas until something surgical is required, and then it is discovered too late that "there is death in the pot." A few weeks ago I removed the mamma and axillary glands in a middle-aged lady. The house was a good one in the country, and everything about indicated comfort and even luxury. So much was this the case that I omitted the precaution which I usually take of looking at the sanitary arrangements. The operation was performed very satisfactorily, and I fully anticipated hearing that primary union had taken place. But on the fourth day I was summoned to see her, and found her with a high temperature, a rapid pulse, and a brown tongue. She was delirious, and the wound was dry and septic. Evidently she was in the most serious danger from septic absorption from somewhere, and the truth was soon extracted. On the same landing, and close to the patient's room, were a bathroom, a water-closet, and a dressing-room with a fixed basin in it. They were all situated in the centre of the house, and the pipes from them passed beneath the house. But the worst was that they positively had no traps whatever, and the water-closet pipe went straight down into the main drain without a check anywhere. The patient's daughter and sister said their relative had frequently been warned of the danger she was running, and when they visited her they always perceived smells and felt ill. But she did not, and so refused to have anything done. Having hermetically shut up the poisonous apartments, I ordered the dining-room at the very furthest end of the house to be got ready as a bedroom, and, in spite of her dangerous condition, we carried the patient, wrapped in blankets, to it. The nurses declared that the very next day she was better, and she soon recovered. It was a very narrow escape. Of what avail were all our precautions at the operation when we had forgotten to see about the drains in the house? Even fishing-boots would not have helped.

I was Demonstrator of Anatomy in the University of Glasgow at the time that Professor Lister was introducing his views. Coming immediately after that to Liverpool, I warmly adopted his principles, and have followed out every phase of Listerism, from the carbolic-putty and lac-plaster days down to the present day. After this not inconsiderable experience, I am glad to say that the exercise of a certain amount of common sense, combined with a strong infusion of incredulity, has prevented me from too rapidly adopting plans which I should only have had to change, or giving vent to statements which I should only have had to recant. While innumerable microbe-destroying solutions were being invented, I stuck steadily to carbolic acid, taking note of the fact that no sooner was some substance brought out which was warranted to slay the bacterium without fail than it was discovered that this was all wrong, and that it was meat and drink and clothing also to the bacterium. Well may Mr. Treves say, "When the feverish struggle of Continental

surgeons to introduce mere novelties into surgical practice is at an end, we may hope once more to resume the development of surgery as a handicraft." When, at the end of many years, Sir Joseph Lister said that after all carbolic acid was the best antiseptic yet found, I remembered the knowing persons who had regarded me as a singularly old-fashioned and retrograde surgeon.

Again, there was a period when the fetich worship of the spray-producer reached an absurd pitch. If a student walked between the patient and the engine, and for a single moment stopped the spray, or if the operator blew his nose within reach of the spray, the operation was doomed to failure. Now, I used simply to turn the spray off and on to suit my convenience at the moment during an operation, because I believed it to be merely a good means of washing the wound and nothing more. This was worse than heresy to the elect: it was rank blasphemy. I wonder if in all the country there is a spray-producer in good working order at this minute. I sometimes regret the poor old spray-producer, and had we not such excellent irrigators I would use it again.

In the matter of dressings the inventor has been exuberant, and I used to notice with quiet wonder how a surgeon would pin his faith to this material or the other, and vaunt its remarkable properties. I never could see much in this; and, when asked what dressing I would like, contented myself with requesting "anything clean." I have dressed abdominal sections very successfully with a dab of collodion. Mr. Treves, after mentioning that he had done the operation of removing the vermiform appendix during the quiescent period 150 times, with one death, says: "What dressings are used after operation is a matter of little or no moment." So much for "*technique*" and the "toilet of the peritoneum," words which have upon me the very opposite effect from the soothing feelings which that blessed word "Mesopotamia" produces upon some people.

In what I have just said, let it be remembered that I reject nothing that really conduces to true surgical cleanliness. I merely wish to point out the foolishness of laying great stress upon minor points, to the neglect of major ones. It is a pity to see silly mummery introduced into the splendid scheme of Listerism. That its illustrious propounder should have lived to see the realization of his early dreams is a cause of rejoicing to every educated man. We who follow his teaching must imitate him in the soundly philosophical manner in which he elaborated his system, and not be turned from this state of mind by what Mr. Treves calls "advanced ceremonial."—W. M. Banks, in *Liverpool Medico-Chirurgical Journal.*

Successive Pregnancies of a Double Uterus.—A primipara twenty-eight years of age was attended by Doctor Consolas, of Athens, Greece, in whom on delivery he found two vaginas, each leading to a cervix. The left cervix was dilated with the amniotic sac; the right was closed. Delivery occurred without complications, but with the aid of forceps. A second pregnancy occurred, and in this he found the left uterus was empty, the right being the seat of pregnancy. In neither delivery was the septum torn that divided the two parts of the vagina.—*Archive de Gynacologie et de Toxecologie.*

Lack of Umbilicus.—Recently we had occasion to examine the abdomen of an eight-year old boy, and were struck by the fact that he had no umbilicus. A very close examination revealed a slight indentation, about an inch in its longest diameter, situate about an inch above the base of the penis, say half an inch above his pubic arch. There was nothing on the surface to lead one to suspect that either veins or arteries terminated at the umbilical depression. The integument was perfectly smooth and plain over the whole abdomen.—*Medical Gleaner.*

Corset Evils.—The opponents of this article of woman's dress are steadily becoming more numerous, besides gaining ground. Notably, two inquests, held within a week of each other in London, returned verdicts of "death caused by tight lacing." The autopsy in one case revealed cirrhosis of the liver.—*Journal of Gynæcology.*

Epilepsy from Tobacco.—A patient had convulsions, epileptiform in character, due to use of tobacco. For two months he had had one or two a week, and they were growing progressively worse in spite of treatment. With the discontinuance of tobacco the convulsions ceased.—Scott, in *Southwestern Medical Record.*

Appendicitis.—In spite of the claims that have recently been advanced by eager young surgeons seeking renown, twenty cases to one are cured permanently without operation.—Pepper.

The Medical Age.

Vol. XV. DETROIT, APRIL 26th, 1897. No. 8.

Original Articles.

ORIGIN OF THE VERTEBRATES.

BY STUART JENKINS.

(*Continued from page 200.*)

The metamorphoses exhibited in the development of the frog may be taken as another indication of the compound nature of the vertebrate organism, the tadpole displaying in a modified form the characteristics of the matrix, and the mature animal the final adjustment between the associated organisms. The phenomena can scarcely be claimed as the result of natural selection, because in all essentials the tadpole is just as well fitted to live as the frog, and a further development was not necessitated by the struggle for survival. If it were, the tadpole state must be considered as one highly detrimental to the race of frogs, and so likely either to be eliminated or else bring about the destruction of the race. If the form of the mature frog was evolved by the operation of natural selection on spontaneous variation, the tadpole stage would have been left behind millions of years ago, because the law of survival provides for no dual existence. It leads up to a type which proves its fitness by surviving, but it does not add a supplementary development to this type so as to convert it in one generation into an entirely different one. And yet if we do not believe this, how are we to account for the existence of the tadpole as an independent self-supporting organism on any theory of gradual development? Again, if we accept this theory of gradual development, we must believe that at one time the tadpole was the adult animal and able to reproduce its kind, and there is no obvious reason why this power should be lost and transferred to a later stage.

These difficulties disappear in the light of Parasitism. In the first individual of the type there existed the future intention of the perfect frog, which is the resultant of definite internal forces. The tadpole stage remains because the imperfect adjustment of the sexual functions, characteristic of fishes, has never been lost. The egg of a frog is in effect a fish-egg, capable of producing a fish, or rather a modified form of the matrix, but no more, because it does not contain enough of the special nutrition provided by the parent to carry the development any further. The tadpole consequently has to hunt its own living at a much earlier stage in its development than is the case with the embryos of the higher vertebrates. In the case of the Surinam Toad, the mother, by a very remarkable arrangement, supplies the nutrition necessary for the whole development, and the young leave her as fully formed toads; but this is an altogether extraordinary and exceptional modification of the normal process. The retardation of the sexual function in the tadpole is due to the development of the cerebro-spinal nerve parasite. This in the first instance made small demands upon its matrix, while in its subsequent development it made increasing calls upon the latter and by so much retarded its arrival at maturity. Reproduction, with very few exceptions, is the last function to develop, and it is only reached when the necessities of rapid growth have been so far satisfied, or the powers of assimilation have so increased, that there is a surplus of nutrition over and above the immediate wants of the organism. The growing predominance of the parasite would cause an increasing retardation in the development of its matrix, and with it a retardation of the reproductive function. Where this function is developed during the larva stage it must be due to superior nutrition. In the so-called Larva-forms, which are of course sexually mature, the early develop-

ment of the reproductive function has resulted in a permanent modification of the parasite.*

The evolution of an internal bony skeleton has always seemed to me to present special difficulties. The ganglionic type of animals has from the first traveled in one rut. The lime which is assimilated is passed through their tissues and excreted on the surface, and it is very difficult to conceive why certain cells in the organism should break through this confirmed habit of growth and begin to retain and excrete the lime internally, not in an irregular and haphazard way, but on fixed lines and in a well-marked direction. I do not think that spontaneous variation will account for anything so palpably definite; but even granting that it will, we are met by another difficulty and one that seems insuperable. The spontaneous variation was of course cumulative—that is to say, it only assumed a definite character through long and gradual development. In the first instance it was confined to a few cells which became differentiated from the surrounding tissue, and put on a new habit of growth. They were in no way connected with the organs of generation, which would of course produce the normal cell growth of the organism. How is it conceivable that a few isolated cells could so influence the product of generation that the new habit of growth which they had put on would be reproduced in the offspring? This objection applies with even greater force to the evolution of the ganglionic nerve system, because this took place in a mass of homogeneous cells without any circulatory system, and where there were no reproductive organs belonging to the organism as a whole, but where each cell reproduced on its own account, some of the new cells being added to the parent tissue, and some being cast loose into the sea to start a new community. Now if certain cells in the parent mass differentiated into a new kind of cell, they would constitute what pathologists call a morbid growth, and if they reproduced their kind part of the offspring would be added to the parent tissue and part would be cast off, as in the case of the normal cells; but on only one supposition is it conceivable that the two kinds of cells would come together to form a new compound organism. If the nerve growth was *parasitic* then its germs, in accordance with the law which governs all parasitic growth, would attach themselves to their appropriate matrices, because from them, and from them only, could they secure that particular form of nutrition which was necessary for their existence.

When we try to trace the bony framework of the Vertebrate back to its source we are struck by one significant fact—it is invariably associated with the cerebro-spinal nerve system. Indeed, with the exception of the point where the two systems lap, as it were, we find that a ganglionic nerve system is accompanied either by the absence of calcification, or where this is present by external limy covering; while with the advent of the spinal cord the calcification is rapidly converted into an internal skeleton. Not only that, but the intricacy of this skeleton bears a direct relation to the development of the cerebro-spinal nerves. It is impossible in considering this very obvious connection to avoid the conclusion that the internal bony framework is the result of nerve development, and that the growth of both has been determined by a definite impulse. Even in the most rudimentary forms there is a foreshadowing of the complete Vertebrate, and through the ascending types we see, as in the embryo, the action of numerous forces tending towards a fixed resultant. If we try to explain this by natural selection or utility working through millions of years, we are met by the contradiction that the rudimentary types have proved themselves as capable of survival as the most advanced, whereas many of the latter, for no very obvious reason, have become extinct. Before natural selection could produce a change of type, we must suppose

* This explanation is borne out by the fact that when the hermit crab (*Pagurus*) is infested by a parasite belonging to the group of *Rhizocephala*, the development of sexual maturity is wholly arrested, while the growth of the *Pagurus* itself is not in the least hindered. The fact is also illustrated in another way by the worker-bee, which is an aborted female, capable in the larval state of being fed up into a queen. I have not attempted to touch in this article the bearing of parasitism on Entomology, but it must be obvious that it affords the simplest explanation of the phenomena of metamorphosis.

that the spontaneous variations on which it acted must have conferred so great an advantage on the first few individuals possessing them that they were able ultimately to entirely supplant the less favored; in other words, the latter would die out. That must be their fate if they were reduced to a minority, because superiority could only tell in the presence of keen competition, and keen competition means death to the weak or defective. And unless they were so reduced, they would breed back the variations to the level of the herd again by sheer force of numbers. Now the fact that the rudimentary forms have survived shows that they cannot have been reduced to a position of hopeless minority, but that in spite of the supposed advantages accruing to their competitors from superiority of structure, they have been able to hold their own in the struggle for existence; so that it necessarily follows that whatever causes may have led to the evolution of a higher type from a lower, the maintenance of life was not the efficient factor. This throws us back once more on spontaneous variation—an unknown quantity. In face of the facts I think that there is but one reasonable conclusion—that there has been an internal evolutive force working on definite lines; and I believe that Parasitism offers an adequate explanation of the existence of such a force, and why in the case of the Vertebrates, through an arrest of development in the first instance, it has exhibited an upward and ever progressive tendency along an approximately determinate course.

This fact of predetermination, so forcibly impressed upon us, has been one of the thorns in the path of the evolutionist. We see it exemplified in the development of the embryo and attribute it to "heredity"—to the slow accumulation of infinitesimal impulses transmitted through countless generations. But in the case of the first Vertebrate there were no such influences behind it, or what there were tended to drive it away from the vertebrate form back to the older type. Is it conceivable that chance variations acted upon by haphazard external influences were capable of tearing the organism away from these powerful tendencies and driving it along a fixed path? I do not see how we can believe it, especially when we consider the fact that the older types have proved themselves just as capable of survival as the new, and that they still maintain their own existence and propagate their kind with an equal if not greater facility. Even in the case of the embryo I think the operation of the force called heredity, as well as its character, is entirely misunderstood. We know that the offspring is like the parent, and we try to explain the fact by a hypothetical force called heredity, which is made up of a mass of influences long since passed away, and not even acting on the parent except by transmission, accomplished I presume by some operation analogous to that of memory, only of course unconsciously and involuntarily. Now we know that there is a fixed limit to the acquiring power of the human mind, and that the number of items (words or otherwise) which can be retained in the memory is somewhere in the tens of thousands; yet in the case of heredity we have millions of impulses vibrating through illimitable eras, and impressing their accumulated stamp upon the offspring of the race. Not only that, but as the highest as well as the lowest organisms begin their life as a mass of protoplasmic cells, and these cells generally reach the type of the organism to which they belong before they are brought into contact with external influences, we must believe that the millions of impulses are stored up and vibrating in the microscopic germ, and waiting to exert their influences on the growing organism. So that a microscopic vesicle has a greater capacity for storing impressions than, let us say, the brain of a Cuvier. That is the logical conclusion, and there is no getting round it. The germ in a hen's egg is completely isolated and must therefore contain within itself the future intention of the perfect fowl. It is supposed to pursue approximately the path which led the primitive cell to the Pterodactyl, and the Pterodactyl to the *Gallus Bankiva;* and it must therefore remember and avoid all the undesirable side-tracks leading off the trail, and follow only the path blazed out for it by natural selection. When I say remember, I mean that the process is literally comparable with the operation of memory, which in the case of so-called instinctive actions leads to certain definite results through the impulse of accumulated impressions.

That is actually what happens with the germ according to the ordinary view of heredity, only the operation is infinitely more complex; for while the mind only stores a certain proportion of the impressions of a lifetime, the germ contains the accumulated impressions of millions of years. Is such a hypothesis tenable or even conceivable? Writers on this subject show very clearly that science has not yet wholly emerged from beneath the shadow of supernaturalism. They still look for obscure and mysterious forces in the organic world, instead of recognizing that here as elsewhere the forces are *mechanical.*

If we take up the question from the standpoint of the doctrine of Parasitism we get an entirely different and vastly simpler explanation. The highest development of any type is the resultant of opposing forces contained within the organism, modified and to a certain extent controlled by the character of the nutrition which the organism absorbs, and its power of elaborating it. The ultimate type of the organism has been determined by the action and reaction of these forces upon each other during a period which, in relation to the type, corresponds to the embryonic stage of the individual; and its ultimate form is the immediate result of the final development of its system of nutrition. Now we have in the embryo the same elements which by their interaction have contributed to the formation of the type, and we have supplied by the parent the special form of nutrition which has determined its ultimate form, and consequently there are present during the growth of the embryo, not a mass of obscure impulses, but the very factors which have evolved the race, actively working and molding the development of the germ. And I do not know that we are not justified in believing that the successive developments which now characterize the individual were exhibited and completed in the first member of the type, but spread over a much greater length of time, owing to a temporary arrest of development in the parasite, a check which it has now no longer to contend with. The implantation of a parasite and the impregnation of an ovum are so exactly parallel in their operation and subsequent growth that it is not necessary to suppose the interposition of many individuals in order to bring about a perfecting of the type. Indeed the phenomena of embryonic development rather favor the conclusion that the evolution of the type was an individual and not a racial matter.

The bearing of Parasitism on neurology opens up a very wide field, and one that will stand a great deal of working. I cannot attempt to enter into the subject here, but I may note one point that seems to be indicated, viz., that all attempts to connect nerve influence with electrical action must prove futile. Indeed such an explanation is no longer necessary. The attack of the parasite on its matrix sufficiently explains the phenomena of muscular contraction; while the transmission of sensation is as simply accounted for by the irritability of the living substance of the nerve animal. In fact contractility and sensibility are phases of the same quality differently exhibited, and the reason why we do not feel the contraction as a sensation is that it takes place in a separate organism—the matrix—of whose individuality the Ego or nerve animal is unconscious, except remotely through chance connections with the great sympathetic. The phenomena of sensibility are exhibited in the most elementary forms of animal life. "They are divided among as many cells as the individual contains, and they exist in a vague and diffuse manner, without there being as yet a special system of anatomical elements, designed to serve them as an appropriate receptacle" (Huys). These phenomena are clearly not electrical, being simply a response to external stimuli; and I can see no good ground for separating them from the phenomena of nerve action, because in the one case they are simple and in the other infinitely complex. The difference is one of degree, not of kind. The fact that contraction can be induced in fresh muscle either by mechanical irritation, strong acids or electrical stimulus proves too much for the electrical theory, and the only safe deduction that can be drawn from it is that the cells of the tissue are still living and capable of shrinking from attack. Vital energy and electricity may or may not be allotropic forms of the same force, but so far no attempts to connect the two have reached the point of demonstration. As the transmission of both light and

sound is due to mechanical impulse, it is not necessary to seek for any other explanation of the transmission of sensation. As a matter of fact the whole five senses may be reduced to an exquisite development of the sense of *touch*.

I have thus endeavored to indicate the manner in which the theory of Parasitism clears up some of the most obscure points in the evolution of the vertebrate organism, and indeed of all compound organisms. The possibility of the Parasitism will, I think, hardly be questioned in view of the very curious facts already brought to light in regard to recognized parasites. Semper, in his work on "Animal Life," actually came within sight of this simple explanation of the compound organism, without, however, recognizing it. In discussing the subject of constant association he says:

> We are now accustomed, in all such cases of deviation from the normal growth (caused by parasites), to regard them pathologically as the result of disease, and certainly not altogether erroneously since we know that they constitute more or less frequent exceptions. But supposing that the reciprocal relations between two animals, or an animal and a plant, were of such a character that each was dependent on the other, any deviation from the normal growth must evidently no longer be regarded as indicating disease. We must even consider the apparent abnormality as a peculiarity or character of the species, since it must necessarily occur in every individual of the species. The constancy of the causes which first lead to the association of the two kinds of animals would inevitably result in the constancy of the deviation, and consequently the transformation of a pathological phenomenon into a normal character would depend solely on the uninterrupted constancy of the active causes. Now in point of fact several cases have long been known to us of pathological changes in animals which have become normal modifications, and the causes of which can only consist in the association of two species of animals.

Some of the cases cited by him involve transformations just as startling as any that have occurred in the nerve parasites. I will just give one instance. The Sacculina after it attaches itself to the abdomen of the hermit-crab loses its organs of locomotion, the greater part of its muscular and nervous system, its organs of sense, and often its mouth, stomach, and intestinal canal. In their place it develops long filamentary processes at the fore end of the body, with which it clings and bores through the skin of the crab into its abdominal cavity, and clasps the crab's internal organs, particularly the liver, in the long, entangled filaments. These slender threads are hollow tubes which open into the body-cavity of the parasite, and which thus absorbs nourishment by endosmosis from its matrix. In the face of such an absolute and radical transformation as this no one can safely deny the parasitic origin of the vertebrate structure on the ground that the cerebro-spinal nerve animal has been modified out of all immediate likeness to its original.

There is one other point which I wish to emphasize for the benefit of those who may be inclined to exclaim at the absurdity of the theory of Parasitism, and it is this: there is but one living matter—protoplasm—and the complicated phenomena which we now observe in connection with it have all been evolved by gradual development from its most primitive form. Consequently, whether we believe that the vertebrate organism has been evolved by some obscure and not easily conceivable process of "differentiation," or whether we accept the direct and intelligible explanation afforded by Parasitism, the living matter is still the same and capable of the same modifications. The fact that the parasite for a time enjoyed a separate existence would not in the least affect its power of subsequent development, although it would predetermine approximately the path along which that development should go.

The theory of Parasitism involves some important and distinctly advantageous modifications in our present view of evolution. In the first place the record is no longer in its former imperfect condition, and it becomes unnecessary to call in untold millions of years to our aid. We have the whole thing before us, from the Eozoön to the highly specialized Anglo-Saxon, and the time required for the evolution of species is well within the limits set by geology and physical astronomy. Lord Salisbury's objection that "time fails for such an operation" is no longer valid. Then it is clear that the contest for survival was subject to internal as well as external forces, while in the evolution of form the former have been supreme, especially in the case of the Vertebrates. The "weeding-out" action

of natural selection has been exercised on types as well as on individuals. The vertebrate organism was for a long time in a state of unstable equilibrium, hence the multiplicity of forms and the large number of types which were unable to adapt themselves to their surroundings. Had these latter types been evolved solely by the operation of the law of survival, it is hard to understand why other parallel forms which in outward equipment were no better off should have withstood the pressure of their environment and survived. The simpler explanation is that these unsuitable types were evolved during the perpetual oscillations between the contending internal forces. They became extinct in spite of the perfecting process of natural selection, a fact which, if it proves anything, indicates that like certain individuals they were inherently unfit, either through lack of intelligence or unwieldiness of form.

This brings us to another point which cannot be too strongly emphasized. When Darwin propounded his theory, the belief in a supreme First Cause had imbued the whole intellectual world with a belief in design. Notwithstanding his magnificent effort to cut loose from superstition, his whole work shows that he was still dominated by this idea of purpose, although he arrived at it through the operation of second causes. Utility with him was the God who molded all structural modifications, and there was no part in the organism, however insignificant, but had come there for a purpose, past or present. This idea will have to be abandoned. Utility has cut but an insignificant part in structural evolution, which has been brought about entirely by modifications of the cerebro-spinal parasite due to variations of nutrition. This last is in reality what has been called "spontaneous variation," and its operation has been entirely independent of any purpose or utility. If the organism adapted itself to its environment, it did so by using what it had, not by developing something which it had not; and the extinct animals go to prove that the effort was not always successful, but that some organisms were so heavily handicapped that they had to succumb. Darwin's cardinal error lay in reasoning from the artificial back to the natural. The reading of Malthus first gave him the idea of the struggle for survival, and the achievements of the dog- and bird-fanciers afforded a plausible argument for the operation of "spontaneous variation;" but as a matter of fact that dire struggle for existence which prevails in artificial communities has no parallel in nature, while the scrupulous and unremitting care which has produced the artificial breeds, and without which they would speedily become non-existent, is in itself a sufficient refutation of the claim that in it we have an explanation of the origin of species. Species took their rise outside the breeder's yard, and from causes the very reverse of selective; and the weight of current opinion to the contrary notwithstanding, it will yet be found that Darwinism has held the same relation to evolution that the theory of epicycles did to astronomy. It has expressed the problem in new terms, without solving it.

Here I will leave the matter for the present, but I cannot close this article without referring to one striking fact. From the earliest ages mankind has recognized the duplex character of the human organism. Philosophers have speculated and disputed about it, metaphysicians have dissected it with the scalpel of keenest ingenuity, theologians have thundered, blundered and prayed over it, theosophists have traded on it, and scientists have even denied it altogether; and yet it would seem that, after all, this blind semi-instinctive belief is founded on a profound physiological truth; that the Ego, the Nerve Animal, the highly specialized Polype, is indeed in the body but not of it; that while dependent on the subordinate organism in all matters of nutrition, it yet maintains a separate existence; that it is in fact that hitherto unspecified entity, the soul. It is very curious when you come to think of it.

MEDICINAL AND DIETETIC TREATMENT OF TYPHOID FEVER.*

BY WILLIAM S. ELY, M.D.

When I commenced practice, nauseous fever mixtures, turpentine and quinine, whiskey and brandy, with close air, abstinence from water, and disregard of diet, constituted

*Read before the Medical Society of the State of New York.

the approved method of treatment of the disease under consideration; and the majority of patients survived.

The profession was slow in discarding a system of medication taught in the text-books and *ex cathedra* in medical schools, and I still remember wondering whether it would be safe to omit turpentine internally for a dry tongue, or externally for a swollen abdomen. *Medicina "non facit sallum"* has been true of our therapeutic progress. It has only been by slow degrees that we have become convinced that the function of the physician in the management of self-limited diseases is to modify symptoms which he cannot arrest, and to guide the patient safely to the haven of health, as a skilful captain steers his ship across the sea.

The discovery of the bacterial origin of typhoid fever has stimulated the study of its management, in the expectation that by the destruction or neutralization of a specific germ its deleterious influences may be arrested or modified. While this is the hope and aim, and may be confidently anticipated in the future, we are not yet in a position to declare it *"au fait accompli."* The strong hopes of aborting typhoid fever by the "Woodbridge treatment" have not been realized in the experience of many of those most anxious to establish its value; but it is only just to Doctor Woodbridge to say that he deems failures to be due to an incomplete comprehension of his elaborate method, — hence his treatment should be accorded further trial.

When the little square boxes of coal-tar derivatives came to us from across the sea, with such wonderful endorsements of their ready acceptability by both palate and stomach, and of their harmless antipyretic effects, how they were thrust upon patients, and with what delight the practitioner saw the mercury in the fever thermometer tumble! It now seems singular that it took the profession so long to measure the harmful reaction of these remedies in the form of nervous depression and heart failure. I do not question their potency, but I desire to emphasize the belief that if employed it must be in smaller doses than formerly, and their effects more closely studied. It appears demonstrated that the diarrhœa of typhoid fever is a salutary influence, carrying off noxious bacteria, and lessening the septic infection which they seem to favor; therefore the laxative usually given early in the disease may often be continued, with good effect, in the form of a saline.

There is reason to question whether the so-called "fever mixtures" do sufficient good to compensate for their disturbing influence upon digestive processes; nor is there any agreement in favor of guaiacol, salol, carbolic acid, iodine, chlorine water, and so many other vaunted remedies. They serve to satisfy friends that something is being done, but I am led to question their real efficacy. Why should I argue for their potency, when my reader will perhaps argue that the external and internal use of water constitutes the best antipyretic yet known? We are left, then, in ordinary uncomplicated cases, to place our main dependence upon hygienic conditions and dietetic treatment. Whatever else may be required, fresh air and pure water must be abundantly supplied.

I usually aim to place a typhoid-fever patient between two open windows; the fear of taking cold is a *bogey* to be expelled from the minds of all—both patient and friends. Whenever possible, two single iron beds should be supplied, the bedding of the one not in use being left in the open air from four to six hours daily.

The bed-pan often excoriates the sacrum. I have seen terrible bed-sores, compromising the life of the patient, follow its use. Hundreds of times in single cases this instrument of torture is shoved under emaciated hips. The skilful nurse soon learns to cover the bed-pan with pads of cotton wadding, to be burned after use, and she changes the position of her patient almost hourly from side to back, and from back to alternate side, upon the softest bed she can construct; thus the discredit of an extensive bed-sore, or great praise for preventing the same, may be due to the nurse. She will remember that there is danger wherever there is prolonged pressure, not alone in the region of the hips, but also about the shoulders, elbows, and ears. In bad cases, with brain symptoms, when the patient's eyes are fixed and open, the nurse will frequently move the eyelids over the cornea, to prevent dryness and ulceration of the same.

It is no longer customary to give remedies to moisten the dry tongue of a mouth-breathing typhoid fever patient, or to lessen the sordes upon his teeth, but it is expected of the nurse to modify these conditions by frequent cleansing and soothing lotions.

In intestinal hæmorrhage, often followed by a sudden fall in temperature, we note a condition always serious, and occasionally fatal. It may be treated by five-grain doses of alum largely diluted with water, frequently repeated, by ice upon the abdomen, and by stimulants as demanded. When pain, shock and collapse are present, which may indicate intestinal perforation, the skilful surgeon must be called in consultation, and the question of immediate laparotomy is to be decided.

I believe there have been, and will continue to be, cases of typhoid fever due to an intense septic influence which will prove fatal under any treatment at present known. They are like septic diphtheria, septic scarlatina, septic pneumonia, and other septic states of the system, in which the poison of the disease is so excessive as to paralyze hopelessly the nervous system.

Stimulants have been used injudiciously in typhoid fever. I am always distrustful of the result of a case which cannot survive the first week without stimulants. Defer them until the second or third week of the disease, or later; they are powerful agents in reserve for the exhaustion of pyrexia, and for the depressing influence of the fever poison upon the digestive and nervous systems. Begin with camphor water in half-ounce doses every two or three hours, and lead up to the milder alcoholics, such as sherry or red wine, keeping whiskey and brandy to fall back upon. The use of all should be determined by the effect upon the pulse, temperature, respiration, and nervous condition. Strychnine is of great value in many cases, and may be given for days in frequent doses, providing there is a competent nurse to watch for cumulative effect.

As to the dietetic treatment, the profession is now generally agreed that liquid food is nearly always preferable, and that in the average case there is no substitute for milk in some form—plain, boiled, peptonized, with lime water or soda, according to the indications. Two quarts a day is a minimum amount for the average case. My patients have not been disturbed by its regular administration by night as well as by day, and indeed I never make any difference between night and day in the management of serious cases of typhoid fever. Rebellious stomachs, as in some other diseases, are to be managed rather than medicated. An amount of milk given every three hours and rejected, can be given in divided portions every hour, or half hour, and be retained. I once saved a patient's life by slipping one half ounce of nourishment into the stomach every fifteen minutes—ninety-six times each twenty-four hours—for several days; larger amounts at longer intervals invariably caused vomiting. As nervous force is rapidly consumed by persistent high temperature, its duration must determine the amount of food given. Milk may often be supplemented by beef-juice and eggs. In exceptional cases where exhaustion has been marked, I have given twenty whole eggs, or the whites of forty eggs, every twenty-four hours, with benefit.

Judgment is what is needed in conserving the vital forces of the patient and in treating complications as they arise. Statistics of medication are valueless, unless the type of the disease be considered. Age, constitution, habits, previous history, climate and local surroundings, necessarily modify treatment and its result. The distance is antipodal between ambulating typhoid fever, and the profound septic case which paralyzes the whole system long before the malady can reach the fastigium of its course. *Judgment*, I say, is required to generalize the disease, and to individualize the patient, to measure accurately the conserving and destroying forces, from visit to visit, and to adjust the management in each particular case by the indications thus obtained. *Non nocere* should be our motto.

Do these views savor of nihilism in the therapeutics of typhoid fever? I reply that where there is no agreement whatever among physicians in the use of numerous remedies in a self-limited disease, it may well be asked whether they have an unquestioned value.

In conclusion, if I underrate mere medicinal agents, I cannot exaggerate the importance of hygienic and dietetic measures. In

the truest sense we *cure* our patients by caring for them. They are often helpless indeed, lapsing into the oblivion of infancy, and are wholly at our mercy. Are we not criminally negligent if we do not give them our most intelligent care? Until we have learned successfully to abort the disease, I repeat we must depend mainly upon hygienic and dietetic measures, with the free use of water externally and internally, and the guarded employment of those medicinal agents which have proven most trustworthy in the physician's individual experience.

I have been well satisfied with the results obtained from the application of these principles. And it is principles of treatment rather than specific medication that I have aimed to suggest — I should deem it presumptuous to do more than this.

Lastly, let me emphasize the great importance of the aid rendered by an intelligent trained nurse, in every serious case of typhoid fever which we are called to treat.

78 South Fitzhugh street,
Rochester, N. Y.

REMOTE RESULTS OF UNREPAIRED LACERATIONS OF THE PERINEUM AND CERVIX.*

BY J. W. YOUNG, M.D.

The many phases of laceration of the perineum and cervix are familiar to all, consequently it is unnecessary to enter into the general anatomy of the parts involved, or the causes of tears occurring in childbirth. It is my purpose therefore to write only of those partial lacerations of the perineum, either open or of muscular separation beneath the mucous lining, and of tears of the cervical walls, such as are frequently left to heal, without repair by the accoucheur. Often one is asked to examine these parts, months after delivery, when only slight discomfort is felt, and for what is supposed to be only a very slight ailment.

One is also consulted by the like patients who have suffered months or years to elapse, and who are often miserable wrecks, nervous, hysterical, uncompanionable, and unable to care for their households; they frequently suffer from dyspepsia, palpitation, constipation, and, in fact, aches and pains in almost every part. With some women it is only six months, and with others six years, with an equally severe or badly healed laceration, before there is appreciable breaking down of the general health, and the full extent of the remote results of the injuries is realized.

In cases of incomplete rupture of the perineum involving partially the fibres of the sphincter, either open or submucous, where no repair has been attempted, there is found between the finger in the rectum, and the thumb in the vagina, a mass of tissue not exceeding one-fourth inch in thickness. Many symptoms caused by these lacerations do not appear for months or years, and badly healed tears of the cervix may not cause much discomfort for some time.

Another fact to be noticed in the history of these lacerations is the length of time in which reflex or remote systemic diseases arise as a result of the primary injury in certain women. This depends no doubt on the general vitality, state of health, and predisposition to organic weakness.

Among the immediate results of laceration of the perineum are anterior and posterior displacements, prolapse, cystocele, rectocele, chronic cystitis, subinvolution of uterus, impairment of uterine ligaments with tendency to abortion, and impairment of sexual gratification alike to the woman herself and to her husband. Laceration of the cervix with erosion of the everted lips transmits subacute inflammation to the uterus and its appendages. It is not to be expected every patient will exhibit all the symptoms thus enumerated: while a few may do so, the majority will present only a portion, which however are usually sufficiently abundant and categorical for definite identification.

If a woman be strong in her general make-up at the time of the injury, she soon gets out of bed, attends to her household duties, and appears quite cheerful and happy perhaps for months; very few of the primary symptoms trouble her greatly, and in fact it may be years before great complaint is made. Unfortunately many physicians and women consider partial laceration of either the perineum or the cervix a trivial matter; many of the latter think

* Read before the Western Surgical and Gynæcological Association.

a partially healed tear of the perineum, that has not involved the rectum, is a part of the lot of maternity which must be borne in silence,—that it is in fact a part of the punishment inherited from the spouse of Adam because of the transgression in the Garden of Eden.

Of course it is generally understood at the present time that the accoucheur should repair the perineum under proper aseptic precautions, though the tear be ever so trivial; yet the gynæcologist finds large numbers of broken-down perineums, in many of which no efforts at repair have been made.

The question presents itself: How do unrepaired injuries of the perineum and cervix render the lives of so many women miserable, induce disease in distant organs of a grave character, and make a wreck of the whole nervous system, accompanied by pain in every square inch of the body, with premature death in many instances. Much has been written *pro* and *con* in regard to reflex action through the ganglionic system of nerves; and while most admit there is something in this action, others claim that unnecessary stress is laid thereon; that each organ or part takes care of itself; that its diseases are nearly all produced by germs peculiar to each part, which are admitted by accidental means into the tissues. I am willing to partially admit the latter, but must also claim that reflex action, coupled with a weakened organ by heredity, has much to do with the morbid sequel, and even in aiding the germs of disease to find entrance.

Almost every practitioner can recall women who became pregnant and sought aid for relief of the vomiting incident to this condition.—Did this arise from the germs of disease in the stomach, or was it a case of reflex action from the irritation of a pregnant uterus and infringement on sensitive nerves? To many of these unhappy creatures it is possible to give relief, but now and then a case appears that baffles all attempts at succor, and the victim perishes from inanition caused by reflex action through the great sympathetic nervous system.

During the passage of a gravel from the kidney to the bladder or a gall-stone through the bile-duct, does the patient ever fail to vomit? The stomach is found healthy, with no germs of disease and no pain there, till reflex action through the "abdominal brain" caused emesis; and no doubt the same cause affects other organs in varying degree. Hence if this condition persists for any great length of time, the rhythmic action of all organs will be lost, a chaotic condition obtains, and even life may be threatened.

Again, all have watched a catarrhal appendicitic inflammation in which there was no perforation into the peritoneum, with severe pain, no appetite for days, fever, with obstinate constipation, and a distressing retching and vomiting. Can the tumult be accounted for in the general system of organs, or in any other way than that the constipation, fever and vomiting were all caused by reflex action from the inflammation in a very unimportant little organ? It seems to me that when an organ or any part of the internal structure of the abdomen or pelvis is in trouble, the usual nerve stimulus is withdrawn from the remaining organs, and a chaotic action takes place in other parts.

Take, for example, a woman whose perineal body has been destroyed in childbirth: she may have as a sequel, prolapsus, rectocele, cystocele, etc., which often induce other abdominal complications involving bladder, uterus, ovaries, etc. These will induce subacute inflammation of organs, and irritation to terminals of the sympathetic system; and no doubt the irritation will make great demands through the ganglionic chain for aid to repair the damage, and thus leave the upper organs without that proper stimulus which causes each to perform its whole duty in the body: Digestive ferments are not manufactured; peristaltic action is weak; the patient soon develops dyspepsia; then, while the "abdominal brain" is worried over the abnormal condition of the pelvic organs, the liver does not get the attention required, congestion takes place, and fatty degeneration follows. Would it be amiss to say, if the kidneys did not get their usual stimulation from some source, that congestion of their tissues might occur and a diabetic albuminuric condition ensue? And, if long continued, who can say but what these incurable diseases do occur in these organs from this cause? If these organs can become diseased by reflex action, then it fol-

lows that the heart, lungs, brain and all other parts will be subject to the same law. Consumption may be brought on by the germs getting a foothold by reason of the normal stimulus to the lungs being transferred to suffering pelvic organs,—hysteria and insanity might and do often result from the same cause. Indeed, the general nervous system is admitted by all thinkers to be greatly in sympathy with subacute inflammatory conditions of the sexual organs. I am quite sure I have observed several women with torn perineums who before the sad accident in childbirth occurred were bright and cheerful wives and happy mothers, but later became irritable in mind, fretful, peevish, even neurasthenic, all from this very cause; and after a proper repair of the part had been made they gradually regained their buoyancy of spirits and former health, and were the bright magnets of the home. I cite a case in point:

Mrs. W——, aged 29, mother of four children, physically robust in every way, suffered with intense colic in the region of the stomach. After trying various remedies, by injecting one-half grain morphine hypodermatically I succeeded in relieving. I searched for evidence of gall-stone, but found none. I subsequently attended her in at least thirty attacks during two years, which I found were more apt to recur after menstruation or excitement. She would not admit any sexual disease. A number of physicians did their best for this patient for two years more, but the colic persistently returned. When she again summoned me, it required a grain and a half of morphine to bring relief, besides applications of hot cloths, etc. After the pain was relieved I urged an examination of the sexual organs, and discovered there was absolutely no perineal body, but simply a membrane between the rectum and the vagina, a heavy and enlarged uterus with erosion of the cervix, and a badly healed tear on one side of this organ,—and yet this woman claimed to have suffered little therefrom. After much persuasion she finally submitted to double operation, which secured all that could be desired as far as healing was concerned, and the cervix and perineum were thereby rendered nearly normal in shape and appearance. Since, she has had but two slight attacks of colic, is now in good health, and has taken no morphine.

I have made the usual repair necessary in quite a number of cases of lacerated perineum, sometimes before the nervous system was seriously injured, and again in others in which all the horrors of hysteria and neurasthenia were present, and have secured some most surprising results, though I must also confess to some failures; but I opine the latter were due to neglect to make repairs until overwhelming mischief was done to the general nervous and physical system, through reflex action, from a given source of continued irritation.

I do not wish to be understood as saying all cases of hysteria, neurasthenia, and insanity in the female are caused by lacerations of the perineum and cervix; but I do believe a large per cent. of these ailments are so caused, and the remainder by a focus of continued irritation to terminals of the ganglionic system in some other organ, or continued mental worry or shock which affects the brain.

Bloomfield, Iowa.

CASE OF MOTOR APHASIA.*

BY P. C. THOMPSON, M.D.

I wish to report a case of aphasia, which in many respects manifested some very interesting, if not unusual, phases.

A. B.——, aged 34, married, well educated, reporter, left-handed and of sanguine temperament. He was seized with appendicitis about four years ago, since which his health was good up to the morning of December 20th, when he complained of chill and severe pain in right iliac region. Fears were entertained of a return of his old trouble, but after twenty-four hours the symptoms subsided, and the following day he seemed quite well. On the third day, however, upon rising in the morning, his wife discovered his speech was unnatural; that he seemed to be at a loss for words to express himself.

I found patient lying in bed quite comfortable and apparently not ill. The aphasia had completely disappeared, and he only complained of slight headache extending to the right temporal region; temperature 99°; pulse 74; respiration normal. The following night he suffered intensely with headache, and the succeeding day the aphasia returned, and has persisted more or less markedly ever since.

* Read before the Morgan County (Illinois) Medical Society.

At that time the temperature was 97.5°; pulse 65; respiration 14; pupils somewhat retracted, responding slowly to light; patellar reflex normal; gait steady; equilibrium fair, but could stand with difficulty with feet together, arms extended, and eyes closed; no indications of facial or of other forms of paralysis.

December 24th his temperature was 97°; pulse 54; respiration 12; secretions good, urine normal; had rested well; appetite fair; in good spirits, but quite unable to express himself intelligently either by talking or writing — sometimes a word by conduction would be blended with another as *numicipality* for *municipality*, *maliplation* for *manipulation*, and the same errors would be made in writing. Occasionally there would be substitution of one word for another in a sentence, probably before its place, assuming a form of what may be termed paraphasia: in attempting to say, "I feel much better this morning and slept well all night," he said, "I feel much better this night and well all night." He afterwards corrected the former mistake, but the latter he did not appear to notice.

His memory of remote and recent events was unimpaired; often laughed at his mistakes and at once tried to correct; once said in asking for a drink of water, "Give me a drink of *earnest*,"—the memory picture of the word water was entirely lost until it was taught again, but the following day he could repeat without mistake. He seemed unable to control efforts of memory, and more than two or three words in a single sentence was confusing. I read to him this sentence in groups of four to six words, pausing to have it repeated after me, which he utterly failed to do:

Just outside of one of our eastern cities is a lakeside hotel, where the same families go summer after summer.

Repeating in the same manner he undertook to write it with this result:

Just out our our is A-a ears lakeside hotel where where is a family summer.

Later there was a tendency to repeat words as observed in the above instance.

After many indications of improvement, a week from the first attack he was still unable to recite the alphabet; in attempting to do so he omitted the letters "k" and "n" and called "t" two. In repeating the calendar months, beginning with January, he left out May. Symbols and abbreviations with which he was familiar could not be recalled, and he often expressed much chagrin at failure. Simple addition and subtraction were performed with much deliberation and often with many mistakes. Six plus four minus two was a complex study, but when once corrected, whether in mathematics, reading, writing, or spelling, he would be able to master it perfectly by the next day. By this method of education most words that disturbed him in the beginning of his ailment became quite at his command.

Now about three weeks from the first attack he seems quite well physically, and much improved every way. Pulse, temperature and respiration normal; eats and sleeps well; the migraine that troubled him mornings has almost subsided. He reads and writes with but few mistakes, but quite slowly and deliberately, as though not quite sure he is right. He repeats words in his conversation quite often, and occasionally a word is omitted.

Treatment consisted mainly of seclusion, confinement to bed, light diet, the iodide and bromide of potassium, with fluid extract of ergot in full doses.

The subject of localized brain function and of mental disturbance demands a volume, therefore I am unable to discuss this case at length from either a pathological or physiological standpoint. Suffice to say there are many classifications of aphasia and kindred functional brain disorders. Many times the terms are erroneously applied, and it often requires the closest study to differentiate true motor or sensory aphasia from other cortical lesions.

The study of this peculiar and interesting lesion has done much to establish the fact that brain centres and brain cells each have their respective function, and to-day localization diagnosis is made with much skill and accuracy by neurologists, and even by general practitioners, where but a few years ago it appeared quite intangible and impracticable.

Jacksonville, Illinois.

CROUP.*

BY FOREST F. BELL, M.D.

Until the last quarter of the present century, the disease under consideration has been one of the broadest outlets of infantile life, and the narrowing of the outlet has been more on account of the conservatism of medicine than because of any great discoveries in pathology or treatment. To say

* Read before the Windsor Medical Association.

we do not treat croup too much is to say that we have improved.

Croup is essentially an inflammation of the lining membrane of the upper air passages—nothing more, nothing less. It is usually confined to the larynx, but frequently extends to the trachea and bronchi.

Croup is sometimes accidentally, sometimes by judicious treatment, aborted at the outset, and it is then usually termed false croup, spasmodic croup, or spasmodic laryngitis.

The primary or hyperæmic stage is the commencement of croup, and should be carefully distinguished from spasm of the glottis, as the latter more frequently occurs from nervous reflex action, or irritability of the motor branches of the laryngeal nerves. The second stage is that of congestion and exudation; and the third that of the consolidation or resolution of the exudate.—In short, the history of croup is the history of the mechanism of inflammation; and all its forms are but modifications of that mechanism.

The division of croup into two distinct diseases has caused confusion, and this is owing largely to the fact that spasmodic or night croup is almost unknown in Europe as such, and the reported cases in America are so universally fatal that it has been supposed to be an independent affection, only assuming the name of croup by a sort of piracy. The belief formerly prevailed that in a case of true croup the exudate thrown out (which afterwards consolidating assumes the appearance of a membrane) was a true membrane, pathognomonic of, and specifically formed by, this disease.

Among the first to oppose this doctrine was Doctor M. Billard of Boston, who holds that the elements of the membrane exist in the ordinary secretions of the part; he thinks the mucous membrane generally supplied the secretion, which became more and more condensed and adherent to the secreting surface, in the first instance, than in healthful mucous membrane; became still more consolidated and adherent with increasing age, on account of the loss of moisture; and that once firmly consolidated the effect of a copious and fluid secretion beneath must be to loosen the morbid lining and facilitate its expulsion. Pseudo-membranous croup has been by many supposed to be identical with diphtheria, but this idea is certainly fallacious.

Diphtheria is essentially contagious or infectious, while croup certainly is not! The exudate in diphtheria is putrid and destitute of fibrin; that of croup exhibits no tendency toward decomposition and is largely fibrinous. Diphtheria is as constantly followed by sequelæ as scarlatina, while croup when recovered from has no sequelæ proper. An understanding of the mechanism of inflammation when seated in a particular part of the air passages will enable every symptom of croup, whether true or false to be satisfactorily explained; while the phenomena attending diphtheria cannot be so explained.

The exudate of croup has been the subject of much study, and the belief has now become general that the pseudo-membrane is simply the coagulation of exuded lymph. It is said one cause of the rapid coagulation of the exudate is to be found in the heightened temperature of the passing air current, which is already warmed by the nasal passages; the inflammatory process going on below further heats it and renders the absorption of moisture from the exudate very great,—it is this which renders the inhalation of partially condensed vapor so agreeable to a patient. Another cause is the large amount of the exudate thrown out, as it is well known that the greater the amount of the exudate the sooner coagulation takes place.

The prognosis of the disease is not to be determined by the amount of membrane formed, but by the extent and intensity of the inflammation.

In primary croup, in the hyperæmic stage a favorable prognosis can nearly always be given, because with proper treatment it may be prevented from running its regular course. When called after the exudation is begun the physician is not warranted in giving a favorable prognosis, knowing that the extension of the inflammatory process throughout the larynx, trachea and bronchi is, in the majority of cases, followed by death, and this too notwithstanding the astonishing results constantly being published by those who had previously lost nearly every case of croup, but since adopting such-and-such treatment "have not lost a single case," etc. The number of remedies vaunted as specifics for croup

is very large, but unfortunately they rarely remain specifics through a single season.

The croup attack usually comes on at night, and can often be traced to exposure; in any event the child takes cold, the laryngeal lining membrane becomes hyperæmic, thickened, turgid with blood, and as the swelling increases the diameter of the air passages becomes lessened, the membrane constantly becoming drier; now, as respiration becomes more and more difficult, the passing air currents make a noise as if passing through a metallic tube; the child exhibits a hoarse, brazen, ringing cough, so characteristic that it is denominated "croupy," and once heard is never forgotten. These are the symptoms of ordinary spasmodic croup, or of the first stage of croup. When this seizure is sudden the parents are generally alarmed and at once summon medical aid; but it frequently happens the hyperæmic stage is dilatory in asserting itself, and the symptoms are so slow and so gradually progressive that the attack escapes notice except as "a bad cold," or "sore throat," until exudation has commenced and the persistent height of fever warns something more serious is the matter with the patient.

It must not be assumed that all cases of pseudo-membranous croup run their course so gradually, for in some exceptional cases the false membrane may form in a few hours; but usually it will be found to have had a gradual onset. In all varieties of croup the fever is constant, but speedily abates upon the subsidence of the hyperæmic condition, while in those cases in which the inflammation runs its natural course, the fever remains until the inflammation abates, or death ensues.

As to diagnosis, the points already outlined will enable one to differentiate from diphtheria; again diphtheria commences in the throat, or on the tonsils, where the exudate may be found, and extends downward as the disease advances; while the croup exudate begins in the larynx and its course is the reverse, that is, upwards!

From œdema of the glottis croup is distinguished by the absence of fever, unless the former occurs while suffering from some febrile disease; also by absence of the brazen, ringing cough, and a history of previously ulcerated larynx.

Regarding treatment there is, and probably always will be, great differences of opinion—at least until the pathology of the affection is better understood. Personally I find nothing is better in the hyperæmic stage than the gentle emetic of apomorphine or emetine. Should there be much fever, veratrine and aconitine should be given in sufficient quantity to control the febrile action. To relax spasm a warm bath is beneficial, and an external application of pounded ice may be made to the throat, or warm fomentations may be substituted, bearing in mind that either heat or cold applied continuously is a sedative; but should either cold or heat be used, the same must be continued until the hyperæmic stage is passed.

In the second stage, or stage of exudation, the treatment should be in the line of endeavors to prevent, if possible, the consolidation of the exudate. Here emesis will not be so beneficial, but should be resorted to if any tendency to suffocation supervenes. It is highly beneficial to have the patient breathe air heavily charged with moisture, and as lime has the property of dissolving the pseudo-membrane, it is recommended that the vapor employed be impregnated therewith. This treatment is equally valuable in the second and third stages of the disease.

But it not infrequently happens that all these remedies fail, and the little patient goes on from bad to worse, the dyspnœa increasing, the danger of suffocation always apparently imminent, the patient's face assuming a cyanotic hue. If assured there is neither bronchitis nor trachitis below the point of operation, tracheotomy may be resorted to, or what is sometimes better, intubation.

The time therefore when golden results may be reaped in the treatment of croup is in the primary stage before exudation has taken place. The paramount object in the early stage is the prevention of the formation of this exudate. Stop it, and almost all the chances are in favor of the patient; otherwise the chances are greatly against recovery.

Now what will prevent the formation of exudate? It may be prevented by those agents that keep down high temperature and reduce intense local congestion; for it may be said to be the result of these two conditions.

Prevent then these conditions and the formation of exudate is also avoided. First as regards the systemic fever: After evacuating the bowels well, reduce it by giving aconitine and veratrine. Then, from this time until convalescence is established the treatment is unimportant.

Windsor, Ontario.

TUBERCULOSIS OF RECTUM.

BY JOSEPH M. MATHEWS, M.D.

It is very interesting to note in this modern day that tuberculosis may be found in any portion of the body; and since so recognized, it has become more a surgical than a medical affection. It is no uncommon thing to find a tuberculous condition of the rectum with no other manifestation of the disease whatsoever.

Recently came to me a young man suffering with an intense diarrhœa. He had a bad family history, a brother having died of tuberculosis, but inasmuch as he had never manifested any symptom of such, it was not supposed his trouble could be tubercular. Had been treated for ordinary diarrhœa,—had from twelve to fifteen motions daily—a condition that had persisted for possibly three months.

Rectal examination revealed a peculiar ulcerated condition of the lower bowel. Located dorsally was an ulcer the size of a half dollar; laterally two ulcers about the size of a twenty-five-cent piece; both rather deep, with well-defined edges, but not benign or inflammatory at all. Syphilis could not be thought of in the case. Taking his family history into consideration, the conclusion was reached that the trouble was tubercular. No microscopic examination was made. I at once removed all the tuberculous material within the rectum by means of a curette, making sure of getting down to healthy tissue.

I have seen several cases where five or six years have elapsed since an operation of this character was performed upon the rectum, the condition being manifestly tuberculous. I invariably sent the patient after operation to another climate, because I believed this essential; I believe all have recovered and are now living, apparently well. This young man, if he goes to another climate, will, I think, avoid all manifestations in the lung, and likewise be saved from general tubercular infection. If the operation had not been performed, I also believe these local foci would have induced general tuberculosis sooner or later. But I do not imag ine, even after operation, he could safely live in this climate. I have watched cases in this particular, and they have usually gone from bad to worse if they remained here. If the operation is performed early, and the precaution taken to send the patient to another climate, I believe many of these cases of tuberculosis will recover.

Louisville, Kentucky.

Clinical Reports.

SOME ABDOMINAL CASES.

BY EDMUND J. A. ROGERS, M D.

Case 1.—J. A—— was aspirated on October 13th, 1895, and over a quart of creamy pus drawn off, the needle being passed between the ribs, through the folds of the pleura. On the 15th one pint of clear serum was drawn from the right pleura. The liver only slightly enlarged, but the pleura rapidly refilled and the septic symptoms became more pronounced. Multiple punctures with the needle, on the 24th, failed to find pus again in the liver, and it was deemed unwise to draw the serum off the pleura again until a radical operation was performed on liver. On the 29th, while preparing for this operation, death occurred suddenly.

The post-mortem revealed the pleura filled with pus, while an open fistula connected the cavity with the abscess cavity in the liver. The sinus seemed to have slowly formed along the tract of the first aspiration, and therefore pus did not appear immediately in the pleura.

An immediate radical opening of the liver upon the first discovery of the pus might have saved the patient.

Case 2.—A. L——, aged 19, suffered with obscure intermittent symptoms extending over many months. The liver was found greatly enlarged, and aspiration showed a thick, dark chocolate fluid, made up chiefly of broken-down liver tissue. June 16th, 1896, I excised about two inches of the eighth rib, and exposing the pleura stitched both layers to the sides of the external wound,

without allowing lung to collapse; then, cutting through diaphragm, I began stitching the liver capsule into the opening. The liver tissue was, however, entirely gone under the capsule, and the fluid from the abscess rapidly burst through the stitch holes. Finding it escaping, I requested my assistant to press the liver up from the abdomen, and made a free opening, hoping to prevent further escape into the abdominal cavity. This was unsuccessful, however, for although some quarts of fluid came through the wound, a considerable quantity ran down into the abdomen. After irrigating the apparently almost empty liver capsule, I made a central abdominal incision and washed out the whole peritoneal cavity; to do this I used many gallons of water and salt solution; then, by deep catgut sutures, I stitched the capsule opening into the external wound, and packed the liver cavity carefully. I also left drainage from the abdomen through the lower wound for a few days.

The cavity in the liver was kept thoroughly cleansed, and closed very slowly. The amount of thick, ropy, muco-bilious débris that was secreted was simply marvelous, many gallons being removed before the wound finally closed, about May 1st. The patient is now enjoying very fair health, and is rapidly gaining in weight.

Case 3.—July 22d, 1895, I operated upon Mrs. H——, aged about 35; had had severe repeated attacks of marked biliary obstruction with other obscure abdominal symptoms. No calculi were found, the gall-bladder being small and empty. Cholecystjejunostomy was performed, the smallest Murphy button being used. The small intestines were not disturbed except to draw the first found loop of the jejunum up into the operation area; the intestines below were not in any way handled. The patient rallied thoroughly and appeared to be doing well, but symptoms of acute intestinal obstruction supervened. Presuming these to be due to septic peritonitis I did not open the abdomen. Death occurred on the third day.

The post-mortem showed an entire absence of peritonitis. The area operated upon was in a very satisfactory condition. Approximation was perfect, and there was no irritation of the tissues about this portion of the cavity. The highest portion of the jejunum had been drawn up and lay very satisfactorily.

In the lower ileum a volvulus was found which completely occluded the last few inches of that bowel. From the thickened walls of the intestine, its contracted lumen, and its anæmic condition, there seemed no question of old disease here, and this also explained the obscure symptoms before spoken of, which were referred to this location.

Case 4.—Mrs. H——, aged 68, suffered excruciating pain from a large, circular, carcinomatous tumor of the descending colon. Anastomosis was made with the largest round Murphy button between the lower ileum and the sigmoid flexure. The "old agonizing pain" which had persisted for many months disappeared, and the patient lived her remaining weeks of life, which was undoubtedly prolonged, in comparative comfort. The button was passed on the thirteenth day.

So much is written on appendicitis that it seems almost unnecessary to add thereto, but a few points seem of sufficient interest to justify mention.

Case 5.—On September 20th, 1895, I opened a large appendicular abscess. The abscess cavity extended from the concave surface of the liver into the pelvis, and the intestines were displaced to the median line. The cavity closed slowly, and a small sinus persisted, with a ventral hernia.

February 21st I operated again, and found the appendix in situation and surroundings much as I would have expected in the interval of a mild recurrent case. Rupture of the appendix had occurred, and there were slight adhesions binding it down, but all signs of the old immense abscess had disappeared. I could find no indications by adhesions or displacements of the great disturbance that I found there before. It was difficult to believe that nature could so completely restore after such extensive inflammation. The result was satisfactory, but the stitches in the abdominal wall were torn out in moving the patient, owing to the confusion caused by the typhoid epidemic in the hospital. The peritoneum, however, remained closed, and a third operation on March 26th resulted satisfactorily for the hernia also.

Denver, Colorado.

QUINSY AND TONSILLITIS.

The *Medical Gleaner* insists that aconite and phytolacca together, when taken sufficiently early, will not alone abort attacks of quinsy and tonsillitis, but that if persisted in continuously will reduce chronically enlarged tonsils.

THE MEDICAL AGE.

A SEMI-MONTHLY REVIEW OF MEDICINE.

—PUBLISHED BY—

GEO. S. DAVIS, Medical Publisher, Box 470.

All communications regarding papers, reports, etc., should be addressed to the Editor of the MEDICAL AGE, P. O. Box 470, Detroit, Mich.

Matters relating to advertising space, etc., to be addressed to the publisher, Geo. S. Davis, Box 470, Detroit, Mich.

The editor cannot engage to return rejected manuscripts or to correspond with the writers thereof, unless such are accompanied by sufficient postage.

DETROIT, MICH., APRIL 26th, 1897.

Editorial.

"CHINESE YEAST."

Mr. C. E. Stromeyer, of Jedburgh Gardens, Glasgow, writes *Nature* that a friend recently sent him "a few ounces of what he calls 'Chinese yeast,' a white substance which is claimed to possess the power of converting rice grains into a soluble substance, which is then allowed to ferment until it is converted into alcohol."

At first view, this appeared as if someone was trying to "plough" with Takamine's "heifer," or that the Japanese chemist is a copyist instead of an originator. In a subsequent issue of *Nature*, however, Italo Giglioli, of the Agricultural Chemical Laboratory of Portici, Italy, professes to identify the "Chinese yeast" as *Lévure chinoise*, an extensive account of which appears from the pen of Calamette in the *Annales de l'Institute Pasteur*,* and was also reviewed at length in the *Centralblatt für Bacteriologie*.† The relations between it and Takamine's discovery may, however, be closer than has hitherto been imagined.

NEWER DEVELOPMENTS IN BACTERIAL PATHOLOGY.

It may perhaps be recalled that a decade since Jaccoud, Middendorf, Beal, Kuskow, Charrin, Stricker, Spina, Senator and a host of others pointed out the uncertainties that attach to the claims advanced regarding microscopic pathology arising from imperfect knowledge of the natural history of germs, and that they also predicted the accruing of results which recently appear to have been attained by Doctor Filandro Vicentini, who certainly is entitled to some consideration from the fact he has devoted more than a quarter of a century almost exclusively to the study of bacteria, those of the mouth and respiratory passages particularly.

As the result of hundreds of examinations and experiments, Vicentini now asserts that not only all bacteria found in the human mouth, but the pneumococcus, bacillus tuberculosis, gonococcus, Klebs-Loeffler bacillus, and others of minor importance, are all derived from one common parent, which after all is a simple form belonging to the genus *Leptothrix*.

This is a somewhat startling announcement, yet not altogether surprising, as it had in a measure been foreshadowed, especially by such men as Timothy Richards Lewis and the two Cunninghams, who long since found Koch's cholera bacillus was only a modified form of a common oral spirillum. If Vicentini's conclusions are correct, bacterial pathology assumes an entirely new phase; nevertheless the results that will accrue to further examination and study, whether positive or negative, must redound advantageously to the science of medicine as a whole.

Unyielding adherence to bacterial pathology has worked some changes that are not, apparently, for the best, particularly in the domain, strictly, of disease amelioration. It has belittled clinical research and practically swept away pathological and physiological therapeutics except in so far as the latter may relate to the direct annihilation of germs —cause and effect beyond the one line having been to a considerable degree ignored.

While we are not prepared at the present moment to accept unreservedly or unhesitatingly all of Vicentini's conclusions, the evidence is of such a character that it demands careful consideration, and doubtless will lead to newer and better changes in classification. And when is considered the fact that in the domain of natural history the life study of a single species has never yet been perfectly accomplished by a single individual in the brief period allotted to man upon earth, it is readily comprehended how errors

* Tome vi, 1892, page 604.

† Volume xiii, 1893, page 273.

may arise regarding the life history of forms of which we have no knowledge except as seen cursorily within the field of the microscope, or under the artificial conditions of laboratory propagation and culture.

The question is a "burning" one, and if the conclusions of Vicentini are correct it is apt to prove of serious moment to younger practitioners who have been taught to consider micro-biology the sum and substance of all medical science, for they will, in such case, be obliged to begin the study of medicine in a measure anew as regards the mutual relations of physiology, pathology, and therapeutics. But if no other good is accomplished, the claimed discovery will lead at least to more careful study and scrutiny in the future, to greater unanimity of experiment, and to division of work, whereby it may be hoped through the hands of the many, and by comparison of results, knowledge may be attained that cannot reasonably be expected through the efforts of one unaided and alone.

We shall await with considerable interest the further development of this subject; in the meantime would refer those who are interested to Vicentini's latest work on "The Bacteria of the Sputa and Cryptogamic Flora of the Mouth," which is now within the reach of English readers.

RAGWORT AS AN EMMENAGOGUE.

Senecio vulgaris and *S. Jacobæa* (groundsel and ragwort) have long been held in popular repute as emollients and emmenagogues. Such virtues as they were supposed to be possessed of were admitted to demand an enormous dosage. Now two German chemists assert they have segregated from each of these plants an alkaloid, *Senecine* and *Seniocine*, claimed to be especially adapted to therapeutic use, and possessed of practically identical action. The alkaloids themselves are alike insoluble in water, but their salts are freely so, particularly the hydrochlorate. It is claimed neither has any definite effect on sensory nerves. In small doses they diminish the excitability of the motor system, and the action of the heart is slowed; in large doses symptoms are induced very like those accruing to curare, and if pushed the heart is arrested in systole.

"A concentrated *extract* of Senecio apparently induces neither gastro-intestinal irritation nor utero-ovarian congestion, but in some unknown way it appears to be effective as an emmenagogue even in small doses, and to afford material relief in long-standing cases of dysmenorrhœa; it brings on or regulates the catamenia, but should not be given during the menstrual period; it never aggravates the causal malady of amenorrhœa, whatever that may be."

Bardet and Blondell, two French authors who have experimented with the drug, are inclined to contradict Heim and Dalche, the German chemists above mentioned. The former instances a woman thirty-eight years of age, who some hours after taking the remedy suffered from nausea and uterine contractions so severe as to resemble labor pains. Moreover in one instance he had good grounds for believing it was the cause of an abortion. Bardet also asserts the power of either *Senecio* as an abortifacient, and incidentally adds that iodide of potassium is a much more safe and effective emmenagogue.

MEDICAL TREASURE-TROVE IN SWITZERLAND.

Our knowledge of the medico-military organization of ancient Rome owes not a few of its most distinctive details to Switzerland, says *The Lancet* (London). Windisch, for example, the Vindonissa of antiquity, has proved to the Swiss archæologist a real mine of surgical treasure-trove, lying as it does at the junction of the Aare and the Reuss, and commanding on the one side the two Italian highways (from the Great St. Bernard and from Como) and on the other the communications with the Rhine and Danube.

Here was found the celebrated monument with inscription to Tiberius Claudius Hymnus, surgeon of the Twenty-first Legion. Here, too, has been unearthed quite an *armamentarium chirurgicum* in the shape of medicine chests, instrument cases, with forceps, scalpels, needles, catheters, and the like, in fine preservation. Conrad Brunner, of Zürich, has based on these discoveries a highly in-

teresting monograph entitled "Die Spuren der Römischen Aerzte auf dem Boden der Schweiz," and the enthusiasm he has awakened in the medical branch of archæological research bids fair to fructify in even more precious discoveries. Not long since was disinterred at Baden-im-Aargau, near Windisch, a Roman house of fourteen apartments of various sizes, with walls painted with designs of the highest interest to the classical scholar. When exposed to the light of day there appeared about the structure a number of fibulæ and vases, and in the apartments themselves such a quantity of surgical instruments as to favor the conclusion that the house had been employed as a hospital. This is in many respects a novelty in medical archæology. We have very clear notions as to what the valetudinaria or infirmaries for slaves on patrician estates were like; but a building for the wounded or ailing Roman soldier presents points of interest, as hitherto none such have been found in their integrity. Moreover, when we add that neither in Switzerland nor in any other scene of Roman military occupation has there been found so large an assortment of surgical instruments as in this newly discovered hospital near Baden, we have said enough to awaken scholarly and professional curiosity in the spot and to lend additional attraction to the picturesque "Kurort," known since the first century A.D., on the banks of the Limmat.—*Scientific American.*

ALCOHOL AND COMMON SENSE.

It is refreshing to find temperate, scientific, reasonable expressions upon the much vexed topic of alcohol, especially in the public press. Recently Mr. Pellew of the Department of Chemistry, Columbia University, gave a series of lectures in the Museum of Natural History, which have been reproduced in *The Sun.*

Mr. Pellew declares that in diseased conditions where nutrition is impaired, alcohol can be given in greatly increased amounts without intoxicating effects, and is then of the very greatest value—"an ounce will give as much heat as seven or eight times the amount of beef, and that without having to undergo the process of digestion and assimilation;" in other words, "it is burned as in a lamp without wasting the wick." The popular view that alcohol will keep up the heat of the body under exposure to great cold was pointed out to be a mistaken one. "Alcohol actually reduces the temperature of the blood under such conditions, but it is of service to restore equilibrium after the exposure is over."

Mr. Pellew pointed out "the absurd doctrines, not to say absolute falsehoods," that appertain to so-called books on physiology which are required by law as the basis of teaching in the public schools in the State of New York. He deems it "confusing to a child to learn that it is a sin to pick a pocket and to drink a glass of wine." And he queries as to the state of mind that would accrue to a German father or grandfather when his young hopeful would read from his school books that "beer more than any other liquid tends to make the drinker selfish, cruel, and brutal."

A little more common-sense enlightenment of this character regarding most of the (in) "temperate" fads might be of value in all communities. Truth should be the aim, not faddism.

EDITORIAL NOTES.

A Curious Law in West Virginia.—

Doctor Thomas R. Evans, of Charleston, West Virginia, writes the *Medical Record* that, according to the statutes of this State, any physician or surgeon who "*resorts to any expedient whatever*" may be mulcted in heavy damages in case his patient dies; and he is not allowed to testify in his own behalf, nor can any other person testify for him. Finally there is no stated time when such a suit can be outlawed. Doctor Evans declares one medical man was recently, under this enactment, condemned to pay a fine of $10,000.

The old "blue laws" of Connecticut are a mere joke to such mediæval appearing an enactment.

The Yellow Fever Germ.—

And now it has been discovered again. This time it is Giuseppe Sanarelli, an Italian resident of Montevideo, Banda Oriental (Uruguay), who has as he claims inoculated

"more than 2000 animals, including rabbits, goats, sheep, monkeys, and a few horses,"—all of which, despite the fact these creatures are practically immune to the malady, prove his contention and, *of course*, "are definitely assuring" as to his mode of treatment. Price not announced, but just the same it is expected to make the fortune of the Dago charlatan within a few months.

Consumption from Cattle.—

An item is going the rounds of both the medical and lay press to the effect the owner of a herd of cattle by frequent handling and contact developed consumption.

This may be true, but it is very doubtful, and all such statements are best accepted with reserve. Admitting consumption is *infectious*, it is not necessarily *contagious*, and infection is not apt to occur from mere handling of cattle.

Cigarette Smoking.—

A writer in one of our Homœopathic exchanges gravely informs his brethren that he was formerly "a habitual cigarette smoker," and "fast letting them sap his life away," when he "began taking Kali Phos., 6x one grain three times a day dry on the tongue." He kept on smoking, and "in two days lost all taste for tobacco."

Where is Trask, after this?

Effects of Drugs on Nerves.—

The current issue of *Brain* (Part lxxvi) contains a paper on this topic by Doctor A. D. Waller, F.R.S., in which is discussed the action of anæsthetics, sedatives and narcotics upon isolated nerves. There are forty-three illustrations that are very definite and helpful. Thus each record is an interesting and trustworthy autobiographical episode related by the nerve itself.

The "Missing Link."—

It would be difficult to produce a better short popular account of the discovery of *Pithecanthropus erectus*, by Doctor Dubois, than is contributed to the March number of the *English Illustrated Magazine* by W. K. Marischal. The illustrations are very instructive, and the brief text will be easily understood by the general reader.

Strange Operation.—

The *Archiv für Klinische Chirurgie* is responsible for the statement that Czerny some years since removed a diseased breast and then grafted in its place a fatty tumor from the same patient's back. "A year later the lipoma still retained its original size, and had absolutely the fulness and appearance of the breast of the opposite side."

Doctor Richard R. Buck.—

This well known author and alienist, Superintendent of the Asylum for the Insane at London, Ontario, has just been elected President of the Psychological Branch of the British Medical Association at its meeting in Montreal in August next. A better selection could not be made either in America or Europe.

A New Tænia.—

Ijmi and Kurimoto announce in the *Journal of the College of Science* of the Imperial University of Tokio the discovery of a hitherto unknown *bothriocephalus*. It measured thirty-four feet in length and a fraction more than an inch in breadth. Its expulsion was brought about by means of male fern.

Cochineal.—

This old-time remedy seems to have gained new popularity. It is now being recommended by our exchanges as a remedy in whooping and other coughs, with all the laudation peculiar to three-quarters of a century ago.

Remarkable Hysterectomy.—

Israel is reported to have recently removed, on account of sarcoma, the entire intestinal reproductive organs of a girl aged but seven months. Perfect recovery resulted in about forty days.

Leucorrhœa.—

In this malady Donovan's solution—*Liquor arsenicalis et hydrargyri iodidi*—is often of great value; it acts both as a tonic and alterative.

To Disguise the Quinine.—

The *Medical Record* advises *scraped apple*, claiming it to be most efficacious.

"Don't you believe it!" Try it and see.

Items and News.

Thumb-sucking.—

The habit of sucking the thumb among children is one probably of very ancient origin. It may have descended from our Simian ancestors, although no observations bearing upon this point, so far, seem to have been made. Another explanation of the habit may be that the pressure of the thumb in the child's mouth causes some relief during the period of dentition, and thus helps to allay the irritation present in the gums. But whatever the cause may be, the habit is undeniably a bad one, and when persistently and extensively practiced calls for correction. Many devices, of course, have from time to time been introduced with this end in view. Some have proved successful; on the other hand occasionally all have ended in failure. Under the latter circumstances the practitioner and the parents have been nonplused as to the adoption of some new measure of prevention. A medical man relates in the *Boston Medical and Surgical Journal* how a difficulty of this nature was successfully surmounted. For two years every available plan for stopping the habit had been tried in a little girl of five years of age, but without any satisfactory result. Accordingly, the practitioner proceeded to immobilize the elbows of the child at a very obtuse angle. A silicate of potash bandage was applied to each arm, reaching nearly from the shoulder to the wrist. After these had hardened, they were split at the sides and removed. They were then covered and lined with flannel. These two long tubular bandages could then, like gauntlets, be pulled on and off, as the parents wished. This method proved perfectly successful; in two weeks' time the child was quite cured of the habit.

Germ Theory of Disease.—

The harmful results of this theory are many. It diverts the attention of the public from the real cause to a supposed one—a mere attendant symptom. It sets our people to hiding around here and there to escape bacilli when their minds should be directed to the living of such lives as God ordained they should live, thus maintaining a standard of vitality against which the onslaughts of bacilli are vain. This theory turns our physicians from health directors into vermin slayers; it turns them from physiology to toxicology. They cease instructions for rearing healthy children and excite the innocent public with vain imaginings concerning the invisible bacilli. To the germ theorists is due the charge of "going off after strange gods." They inflame the minds of an innocent public with the invisible—the imaginary—when the great need is a knowledge of tangible realities.—CURRIE, in *American Medical Journal.*

[Whew!—ED.]

A New Apiol.—

Ciamician and Silber have evolved a new Apiol ($C_{12}H_{14}O_4$) from Dill oil, which distills at about 285° C. under ordinary pressure, with slight decomposition. Like that obtained from parsley, it contains two methoxyl groups—$C_{10}H_8O_2$ $(OCH_3)_2$—but in distinction from the latter it is an oily, almost odorless liquid, which does not congeal when exposed to a low temperature. It is insoluble in water, but soluble in the ordinary solvents, and not affected by aqueous alkali. Like the known apiol, it is converted into a isomer, isoapiol, when boiled with alcoholic potassa or with sodium ethylate. This apiol forms colorless prisms, melting at 44° C. Apparently the two apiols contain the same nucleus, textraoxy-benzin, and differ from each other only in the relative position of the methylene group to the oxymethyl groups.—*Pharmaceutical Review.*

Expert Witnesses.—

At a recent trial a medical "expert" was examined in regard to certain points in neurology. In the cross-examination he was asked if he recognized a particular book as authority in the matter, and the question was repeated in regard to another book, and then another. His answers were to the effect that he was familiar with all the books mentioned, and that they were authorities on the matters alluded to. The medical witness was then allowed to leave the stand, and the lawyer's clerk was sworn, who testified that the titles of the works in question were fictitious, having been concocted in the law office to which he was attached.—*New York Medical Journal.*

Proprietary Secrets.—

The New York Legislature is now considering a bill to compel the makers of all proprietary and secret remedies to file an analysis of their products with the State Board of Health, so that the Board may be able to distinguish between harmless and dangerous compounds.

Such a law would kill the sale of patent medicines. As long as the secrecy is maintained in the composition of these preparations, so long will they prove attractive to the people; but with contents known their charm is lost.—*Maryland Medical Journal.*

Served Him Right.—

In the peaceful vale of Lichtenberg,
At the Lion's sign, I think,
I was fain to eat, and ordered meat
And a cup of cooling drink.

Quoth I to the maid with rosy lips
Who brought the welcome cheer:
"A golden coin I'll gladly give
For kiss of thine, my dear."

Quoth she: "Good sir, that ne'er will do;
No man hath kiss of mine.
But if thou will'st I'll kiss thy cup."
She did—then drank my wine.

—*Harper's Magazine.*

Corsets.—

Portugal recently legislated against the corset, and now Mrs. Samantha Backus, of Malvern, Osage county, Kansas, is desirous of having her State follow suit. She has written the Governor requesting he include in his annual message a recommendation for a law prohibiting the sale or use of corsets or lacing garments of any sort calculated to compress the human body.—*Exchange.*

Rinderpest.—

Herr A. Sonnewald, veterinary surgeon, contributes a paper of considerable interest to the current issue of *Deutsche Geographische Blätter*, summarizing present knowledge of animal epidemics in South Africa, and describing in particular the geographical distribution of the rinderpest. The paper refers specially to the work of Edington and Thompson.—*Nature.*

Legal Age of Patent Medicines.—

The Missouri Pharmaceutical Association has passed a resolution to the effect that manufacturers of infant foods, proprietary remedies, etc., be compelled by law to place on their inside label and outside wrapper a sworn statement as to when the preparation was made and how long it will keep in good condition.—*Practical Druggist.*

Wholesale Business.—

Young Father (anxiously): "Is it a boy or a girl, nurse?"

Nurse: "It's three of 'em, sir! Three lovely boys!"

Young Father: "Good gracious! This comes of marrying a girl whose father was in the wholesale line."—*Dominion Medical Monthly.*

An Unhappy Bond.—

The Siamese twins lived very unhappily. One took to drinking, and his brother, who did not care at all for liquor, was thereby "seriously inconvenienced." They disagreed on the subject of the civil war and irritated each other to such an extent that at one time a physician was consulted as to the possibility of separation.

Oh, Oh!—

The much-ridiculed devotees of the blue glass cult may take fresh courage, since at the recent session of the British Institute of Public Health an eminent savant declared that it was now indisputable that violet rays kill bacteria. It is simply necessary to transfer one's affections from blue to violet glass.—*Exchange.*

An Exception.—

In an examination of sanitary inspectors one candidate answered the question relating to the wilful exposure of a person suffering from an infectious disease: "He must not ride in any public conveyance excepting a hearse without first informing the driver."—*New York Medical Times.*

Human Life Lengthening.—

A German statistician has calculated that of every 1000 persons 100 reach the age of 75, thirty-eight the age of 85, and only two reach 95. In the seventeenth century the average duration of life was only thirteen years; in the eighteenth, twenty; in this century it is thirty six.

Vaccination in Scandinavia.—

So impressed is Norway and Sweden not only with the advantages but with the public duty of vaccination, that before a couple can be legally married certificates must be produced showing that both bride and groom have satisfactorily undergone the operation.

Food of the Ancients.—

In the very ancient skulls of Egyptian mummies the teeth are generally found greatly worn on their masticating surfaces. This, together with the absence of decay, evidences the possessors must have lived on food that required a deal of mastication.

Modern Practice.—

The most successful physicians do not now treat the disease so much as the patient, by studying his physical, mental and moral potentialities and seeking to develop them in the right directions.—*Exchange.*

Urinary Sediment.—

This can be preserved for several months by covering with a five-per-cent. solution of formaldehyde.

Book Reviews.

THE FISHES OF NORTH AND MIDDLE AMERICA. By David S. Jordan and Barton W. Evermann. Paper; 8vo; pp. 1240. The Government Printing Office, Washington.

This is Bulletin No. 47 of the United States National Museum, and part one of a monumental work which when finished will be a complete descriptive catalogue of the species of fish-like vertebrates found in the waters of North America north of the Isthmus of Panama. The value of a work like this can hardly be estimated, and working ichthyologists will appreciate it in a measure that has never been accorded to any work heretofore.

We observe many changes in nomenclature, the majority of which we are glad to say, inasmuch as they are in the interests of conformity, are to be commended. We, however, fail to see why so many different genera are selected in order to divide species so closely related. One remarkable error is that the siscowit of Lake Superior is considered as a variety of the Mackinaw trout and the sole Lake Superior representative of the latter. On the contrary, the true *Cristovomer namycush* is perhaps more abundant in Lake Superior than in any of the lower lakes of the chain, while *C. siskawitz*, by comparison, may be almost deemed rare.

We cannot but reprobate the retaining of such bastard words as *namycush* and *masquinongy*, which should properly be *namagoes* and *masq'allonge*. Again, the supposed Ojibway (properly Otchipwe) derivations of the words maskellonge and masquinonge are entirely gratuitous.

However, such errors as noted are comparatively trifling considering the great value of the work as a whole, and which exhibits a most wondrous amount of study and research on the part of the authors.

MYSTIC MASONRY. By J. D. Buck, M.D. Cloth; 16mo; pp. 265. Price, $1.50. The Robert Clarke Co., Cincinnati.

This is a valuable addition to a literature that ever has been too meager. It is designed to aid in restoring to Masonry the meaning of its secret symbols and the profound philosophy of the Ancient Mysteries from which Masonry is derived. It employs the general outline of the ritual of the lodge to unfold the real process and meaning of true Initiation, which is made synonymous with the higher evolution of man. Moreover it goes farther than any other work heretofore in giving and unfolding to the general public the real meaning and beneficence of Masonry.

Every member of the Craft should have this volume and peruse it carefully, inasmuch as it will be an incentive to still further investigation; to most it will be a genuine revelation, and can hardly fail to increase every craftsman's zeal and devotion to the grandest organization that has been preserved from ancient times, in spite of all the persecutions and ravages of time.

There are fourteen full-page illustrations of Mystic and Masonic symbols. The type is clear, the paper fine, and with its illustrations render it altogether one of the neatest books that have been published in the last quarter of a century. It is just the thing for the library of a Mason, or as a gift from one member of the Order to another; also for the laity it is equally appropriate, inasmuch as the philosophy and ethics of the Craft are designed for the universal benefit of man.

AULD LANG SYNE. By W. Clark Russell (Globe Library). Paper; 16mo; pp. 274. Price, 25 cents. Rand, McNally & Co., Chicago and New York.

This, so far as we know, is Mr. Russell's first departure from the nautical novel, and though in some respects not up to the mark of his usual work, in others presents evidence of a keener knowledge of mankind than he has ever before exhibited. Briefly outlined it is a tale of a young man, son of a proud Church of England clergyman, who has contracted a secret marriage with the daughter of a dissenter. He is impressed and carried off to sea, following which the girl acknowledges the marriage, which however is not believed by her father because she has neither marriage lines, or remembrance of the name of the clergyman officiating, or of the church in London where the ceremony was performed. Ultimately the proof is found among the papers of the young man by his father, and the girl's good name restored, and of course the heir after many vicissitudes returns from sea and "all are happy thereafter."

ATLAS AND ESSENTIALS OF GYNÆCOLOGY. By Oscar Schaeffer. Cloth; 12mo; pp. 288. Price, $3.00. William Wood & Co., New York.

This is the last of Wood's "Medical Hand Atlases," and fully sustains the reputation that has been won by the preceding volumes. These as a whole exceed anything heretofore known for accuracy, beauty, and compactness. The plates, printed in colors, have many of them required twenty-one impressions in order to secure proper effects, and were prepared by one of the most celebrated chromo-lithographers in Bavaria. The scientific faithfulness, moreover, of the illustrations is a marvel, and how the publishers can afford such desirable volumes at so low a figure seems almost a mystery. The volume before us has no less than 175 figures in color upon 64 plates.

LIFE HISTORIES OF NORTH AMERICAN BIRDS. By Charles Bendire, U. S. A. Paper; 4to; pp. 508. Government Printing Office, Washington.

This is Part Two of a work undertaken by Major Bendire, and which has special reference to the

breeding habits and oology of North American birds. It constitutes one of the Special Bulletins of the United States National Museum, and deals with the Psittaceous, Picarian, Picine, Macrochirine and Passerine birds.

No work on ornithology, so far as American species are concerned, has ever been issued which is so complete and concise as this. Moreover the seven beautiful hand-tinted water-colored plates of eggs are of the greatest possible value to ornithologists in identifying specimens.

TWENTIETH CENTURY PRACTICE OF MEDICINE. Edited by Thomas L. Stedman, M.D. Volume IX; cloth; 8vo; pp. 820. Price, $5.00. William Wood & Co., New York.

This number deals entirely with diseases of the digestive organs. The Local Diseases of the Mouth are by Johann Mikulicz and Werner Kümmel; Diseases of the Intestines is by C. A. Ewald; Hernia, by Virgil P. Gibney and John B. Walker; Diseases of the Spleen, by Alfred Stengel; Diseases of the Liver, by Mariana Semmola and Carlo Gioffredi; Diseases of the Gall-Bladder, by John B. Murphy; Movable Kidney, by Kendal Franks.

This volume well sustains the reputation that has accrued to its predecessors.

THE CAPTIVE NUN. By N. N. Karazin. Price, 25 cents. Rand, McNally & Co., Chicago and New York.

This is a wild romance, first translated into English from the Russian by Boris Lanin. It deals with camp and desert life, the scenes being laid in Central Asia at the time of the Russian advance toward Khiva. The plot is interesting and the story dramatically told, with a love episode running through the volume which commands attention from first to last. There are also many vivid pictures of Russian military life, and Turcoman habits, and Orientalism in general.

ORGAN DISEASES OF WOMEN. By J. Crompton Burnett, M.D. Cloth; 16mo; pp. 156. Price, $1.00. Boericke & Tafel, Philadelphia.

This volume notably deals with enlargements and displacements of the uterus, and incidentally with sterility, in so far as all may be amenable to drug therapeutics. The author insists that medicine can restore to normal, certain enlarged and dislocated wombs, and he gives a very complete list of the remedies that are available, along with the indications for selection of each.

THE YEAR-BOOK OF TREATMENT FOR 1897. Cloth; 8vo; pp. 488. Price, $1.50. Lea Brothers & Company, Philadelphia and New York.

This is a clinical review for the practitioner of medicine and surgery, and furnishes an authoritative epitome of a year's progress in all branches of these sciences.

ARCHITECTURE AND BUILDING. Price, 10 cents; $4.00 per year. William T. Comstock, New York.

The issue for April 3d presents two excellent papers, one on the Congressional Library, the other on the building for said library. Another notable contribution is "The Influence of Technical Education upon the Architect and His Work." There are the usual departments, including "Streets and Papers" and review of a Hand-book of the Congressional Library.

The April 10th issue contains: "Dangers of Legislation;" "Editorial Notes and Comments;" "Myths, Superstitions, Romance, and Humor of Architecture" (XIV); "The American School at Rome;" "The Garden in Relation to the House" (II); "Tennessee Centennial and International Exposition;" "The Academy's Spring Exhibition;" "Protest Against a Duty on Art;" "The Doom of the Parthenon;" "American Public Health Association;" "The Academy of Science Exhibition." There are the usual departments.

THE BADMINTON MAGAZINE. Price, 30 cents; $3.50 per year. Longmans, Green & Co., New York

In the April issue E. Œ. Somerville writes of "A Grand Filly;" Fanny J. Erskine of "Cycling with Hounds; "Cruising in Small Craft" is by C. M. Douglas; "About Books," by Clive H. Meares; "Cricket in the Year of the Queen's Accession," by A. C. Coxhead; "The Prospects of the Racing Season," by R. K. Mainwaring; "Training Setters," by E. F. T. Bennett; "Chasing the Roe," by A. E. Gathorne-Hardy; "Rambling Angling Reminiscences," by A. I. Shand. There are the usual "Notes by 'Rapier.'" The illustrations are by E. Œ. Somerville, H. M. Brock, G. H. Jalland, F. O. Wilson, J. G. Keulemans, Lucien Davis, E. F. T. Bennett, E. Caldwell, and F. S. Wilson.

THE AMERICAN NATURALIST. Price, 35 cents; $4.00 per year. The Edwards & Docker Co., Philadelphia.

Contents for April: "The Scope and Present Position of Biochemistry," by Albert Mathews; "The Polyphyletic Disposition of Lichens," by Frederick Clements; "Fossils and Fossilization" (continued), by L. P Gratacap; "Some Manitoba Cladocera, with Description of One New Species," by L. S. Ross; "The Florida Sea-Monster," by A. E. Verrill; General Notes on Petrography, Mineralogy, Geology and Paleontology, Botany, Zoology, Entomology, Physiology, Anthropology, Microscopy; Proceedings of Societies and Scientific News.

THE MONIST. Price, 50 cents; $2.00 per year. The Open Court Publishing Co., Chicago.

The April issue of this quarterly presents a paper on "Hegel, To-Day," by Rudolf Eucken; I. M. Baldwin discusses "The Genius of Social 'Interests;'" Jas Cappie writes of "Some Points in Intercranial Physics;" "The Conflict of Races, Classes, and Societies" is by G. Fiamingo; "The Mythology of Buddhism" (illustrated) is by the Editor, Doctor Paul Carus; "The Theory of Mathematical Form," by A. B. Kempe.

Therapeutic Brevities.

Taka-Diastase in Dyspepsia and Gout.—It has become so much a matter of routine to rely upon pepsin for the relief and cure of dyspepsia that the influence of the active principles of the salivary secretion on the process of digestion has been somewhat lost sight of. It is only when cases of acidity, flatulence, etc., are met with which resist the action of digestive ferments of the pepsin group, that attention is specially directed to the influence of the primary digestive agent.

I have been much interested during the treatment of a large number of gouty patients to find that although many of them had for months been deprived of almost all butcher's meat and other nitrogenous foods, the acidity, flatulence, digestive discomfort and general goutiness had gone on much as before. Considerable light has been thrown on this subject by the success of the so-called "Salisbury" dietary; for under the exclusive use of red meat (aided by hot-water drinking when the stomach is empty) many intractable cases of chronic gout and dyspepsia have been speedily and permanently relieved. This fact certainly points to one of two things,—either that red meat is not the harmful agent in gout that many have supposed it to be, or, what I regard as more likely, that the admixture of the meat with the carbohydrates interferes with the due digestion of each.

The early loss of the masticating teeth, now so often found, the haste with which meals are so frequently taken, and more especially the custom of taking considerable quantities of hot fluids at meals, give rise to a tendency to wash the food quickly down the first passages, and so prevent it being thoroughly mixed with the saliva; and thus, as the gastric juice has no converting influence over the starchy elements, they become decomposed, giving off a large quantity of gas, and forming amylon-ptomaines, which are almost if not quite as harmful as those ptomaines formed from nitrogenous foods. The elimination of the starchy elements of the food is, however, a heavy price to pay for relief from the slighter functional symptoms; and it is not until serious disease becomes evident that patients will submit to this somewhat severe and irksome form of dietary, which, as it often causes considerable and rapid loss of weight, is not suitable for a large proportion of the cases met with in daily practice. As is well known, malt extract is a potent starch-converting agent, but the amount of contained sugar makes it a double-edged weapon, and it often does more harm than good in cases of gout and dyspepsia.

Some twelve months ago I was induced to give a trial to "Taka-Diastase," in doses of from three to five grains, in a considerable number of cases, both of amylaceous dyspepsia and of the form of gout which seems to be caused by that defect, with excellent results. I usually give in powder with or immediately after meals, especially those with which much starchy food is taken; but it can also be given in mixtures, if neutral or slightly alkaline. Flatulence and acidity are greatly diminished, there is much less strain put upon the comparatively weak intestinal digestive processes, and the gouty symptoms are much relieved. It has never in my experience caused the slightest discomfort, loss of appetite, or digestive disturbance: the dose is so small, and the drug itself so free from unpleasantness, that patients take it readily.

The subjects of amylaceous dyspepsia should of course masticate their food slowly and completely, and also avoid the taking of much fluid with meals,—such liquid as is necessary for the bodily processes being taken one hour before food, preferably in the form of hot water; and that required with meals being taken at the end thereof.

I am convinced that in "Taka-Diastase" we have at command a remedy of the highest value, which is capable of giving excellent results in many obstinate cases of dyspepsia, auto-poisoning with amylon-ptomaines, and the resulting train of symptoms so frequently classed together under the names of latent and suppressed gout.—William Armstrong, in *Liverpool Medico-Chirurgical Journal.*

Scurvy.—Why is it that a dietary consisting entirely of cereals and preserved meat induces the symptoms of scurvy? Doctor A. E. Wright, Professor of Pathology in the Army Medical School, Netley, has lately discussed the facts bearing upon this question, and concludes that scurvy is really a condition of acid-intoxication. This theory seems to be supported by the experience of explorers and others who have had to contend with this malady. There are only three methods which have been definitely shown to exert an influence in warding off and ameliorating the scorbutic condition, and each of these consists essentially in the administration of an alkaline food-stuff (blood, fresh vegetables and lime-juice all come under this denomination). Of each of these it may therefore be asserted that it is a method which is calculated to ward off and ameliorate a con-

dition of acid-intoxication. Though fresh vegetables and lime-juice are used as remedies for scurvy, both of them are very slow in their action, and Doctor Wright shows that much better remedial agents are alkaline salts, such as carbonate of soda or carbonate of potash. A variety of other salts are available for the purpose—for instance, either the citrate or the acetate, or the lactate, of soda and potash, or better still, the neutral tartrate of soda and potash. Inasmuch as the remedial agents suggested by Doctor Wright are inexpensive and eminently portable, explorers and navigators should make use of them.—*Nature.*

Pneumonia.—Very important drugs in the treatment of pneumonia are the four alkaloids—strychnine, cocaine, atropine, and caffeine—which act as stimulants to both circulation and respiration. As a cardiac stimulant and tonic strychnine is inferior only to digitalis, and should always be used when there is exhaustion in pneumonia. Cocaine resembles strychnine in its cardiac action; atropine as a heart stimulant is decidedly inferior, but exceeds both strychnine and cocaine in its influence upon the vaso-motor centres, and is therefore especially applicable to those cases in which collapse occurs or is threatened at a time of crisis, at which period its power of checking excessive sweating often gives it further advantage. Of these alkaloids atropine is probably the most active in increasing respiratory movements in the normal man, but it has less power in asserting itself in the face of opposition than has either strychnine or cocaine, and is therefore practically less available. Strychnine seems to be more active and efficient than cocaine, and does not, as does cocaine, produce cerebral excitement. Caffeine cannot be looked upon as a powerful respiratory stimulant, but affects decidedly the cerebral cortex, and therefore, if employed at all, must be used in small dose as an adjuvant, or in special cases when it is desired to overcome stupor.—H. C. Wood and R. A. Fitz.

Yerba Santa.—I will give a summary of the diseases which to my mind are those in which it will prove most useful. In laryngitis this remedy stands unrivaled. A good plan is to chew the leaves of the plant for a few weeks; do not rinse it out of the mouth with water. If ten drops of the tincture is taken just before a dose of quinine is given, the taste of the latter will be covered.

Ordinary coughs and colds are readily influenced by yerba santa: chronic coughs with bronchitis are more positively and certainly cured by it than anything else. Even those who are well advanced in phthisis fly to it for relief. Two patients told me they had taken everything that could be thought of for dyspepsia, and never got well until they had chewed the leaves a few weeks. Hæmorrhoids it seems to relieve quite readily, though just how I am not certain; whether it really influences the hepatic circulation, relieving congestion, or whether the influence is upon coats and vessels of the bowels, or both, I am not yet prepared to decide; but that it does relieve I know to a certainty. I am satisfied that it increases the specific gravity of the urine largely in many cases.—Bundy, in *Eclectic Medical Journal.*

Acute Gonorrhœa.—I am not one of those who a few years ago thought that the millennium for gonorrhœa had come when the hot antiseptic-solution injection method was introduced, nor am I one of those who believe that nothing can be gained by such treatment. I regret very much to note the fact that in this advanced age many eminent medical men allow themselves to be so influenced by everything that appears new that their writings upon almost any subject are so extreme and exaggerated, and the claims they make for this or that remedy or method so often overstated, that one sickens at the promptness with which he fails to obtain anything like the results claimed for a certain remedy or procedure.—Blake, in *Maryland Medical Journal.*

Tuberculosis of Testicle.—In suppurative cases with fistulæ, in which epididymitis and testicle are almost destroyed, it is best to try to prevent the spread of the disease, without operation, by deep cauterization, drainage, iodoform gauze, etc.; castration may be inevitable:

In non-suppurative cases in the adult, the treatment should be constitutional and expectant; recovery often follows:

In non-suppurative cases occurring before the twenty-fifth year, the affected part is to be removed, but the resection should be confined to the diseased tissue—*e.g.*, the epididymis alone.—Tillaux.

Belladonna.—This drug is recommended as a remedy in sterility of women in whom there may exist no discoverable morbid condition nor even functional derangement of the sexual apparatus. As belladonna is known to exert a powerful influence over the blood-

supply of the uterus, it is doubtless in this line that the beneficial results claimed are produced.—*Medical Times.*

***

No remedy is equal to the local application of belladonna in preventing the secretion of milk in cases of inflamed mammary glands. —*Dominion Medical Monthly.*

Chloroform Anæsthesia.—If the patient expectorates or moistens the towel with his breath, one can change to another spot to get a more even evaporation:

It is well to change occasionally to a fresh, dry part, to be able to see how many drops are falling:

The towel covers the eyes and prevents the vapor irritating them—a point with children:

A small corner may be used to hold near the nostrils in face operations, out of the surgeon's way.—*Canadian Medical Review.*

Puerperal Fever.—Gliakoff treats by constant irrigation of uterus with solutions of carbolic acid and permanganate of potash. A one-per-cent. solution of carbolic acid is first employed, and followed by a weak solution of permanganate of potash having a rose color. The irrigating fluid is kept at 104° F., and allowed to flow for six hours. The results have been excellent. Only one patient out of twenty-eight thus treated died, and she was not treated until three weeks after labor, and had pyæmia.—Reddy, in *Canada Medical Record.*

Purulent Infantile Conjunctivitis.—

℞ Hydrastine sulphate, 5 grains.
Boric acid, 5 grains.
Borax, 5 grains.
Deodorized tincture of opium, 30 minims.
Distilled water, 1 ounce.

Mix and filter.

This should be injected under the lids every hour, the eyes still more often cleansed with tepid water, and vaselin applied to the edges of the lid every night.—*American Journal of Ophthalmology.*

Nausea of Anæsthesia.—When an operation under chloroform has been finished, pour vinegar upon the mask until it is well saturated, and leave the mask in place. As the vinegar evaporates more should be added. This simple procedure has a marked effect in preventing or modifying the nausea after chloroform anæsthesia. It was first advised by a French surgeon, who says that it acts by the vinegar forming a non-irritating combination with the chloroform vapor already changed in the lungs.—*Maryland Medical Journal.*

Nitrous Oxide in Obstetrics—Rakhmanov recommends "laughing gas" in high terms as the result of experience in thirteen cases: Pain was absolutely abolished; the contractions of the uterus were normal and much more regular than before administration; there were no accidents to either mother or child. He urges the installation of the necessary apparatus in every large maternity institution, as nitrous oxide is the most anodyne and easiest to manage of all anæsthetics.—*Bulletin Médical.*

Ingrowing Nail.—Lift the nail edge away from the irritated granulations by means of a hook bent from a strip of silver, about one inch long, three-sixteenths inch wide and one one-hundredth inch thick. The edge of the nail rests on the hooked extremity, while the shank of the hook curves over the side of the toe and is held in place by a turn of adhesive plaster. Cases even of long standing, when properly managed, yield to this treatment in a few weeks.—Taylor.

Night Sweats.—Five to ten grains camphoric acid is the most useful remedy; after taking one dose the sweats often stop immediately. Tincture of hydrastis, five to twenty drops, is beneficial when the sweats are the result of debility from lingering disease; it should be given several times daily. Cimicifuga in small doses often stops the sweats of rheumatism, and quinine is almost specific when profuse sweats occur on going to sleep. —*Clinical Reporter.*

Saw Palmetto.—This is a direct fat producer, tissue builder, and gland stimulant. It is also a satisfactory galactagogue, that will not only secure quantity and quality of milk, but will also enlarge the breasts; to some extent it develops flabby, sunken breasts. It is equally efficacious in relieving the irritated condition of the bladder arising from specific or non-specific urethritis, or from enlarged prostate.—*Homœopathic News.*

Iodoform-Calomel.—Results may be obtained by a mixture of iodoform and calomel, in the treatment of wounded surfaces and

cavities difficult to disinfect, that cannot be obtained otherwise. The combination is especially efficacious in the treatment of tubercular wounds and in tracheotomies necessitated by diphtheritic membranes.—SPRENGEL, in *Centralblatt für Chirurgie.*

Cepheline.—This is a new alkaloid occurring with emetine in ipecacuanha, recently separated by Doctor Paul. It is superior to emetine as a pure emetic, one-sixth grain acting promptly within an hour, and the arterial pressure is not lowered so considerably. As an antidote, however, it is not equal to emetine, as its action is too slow.—*Medical Times and Hospital Gazette.*

Warm Solutions of Cocaine.—The local anæsthetic effect obtained with cocaine is more rapid, more intense, and more lasting if the solution is warm. The dangers of intoxication are thus much diminished, as the quantity of cocaine can be very much reduced if it is warmed. A solution of 0.5 or 0.4 per cent. heated will produce a powerful effect.—DA COSTA.

Cocaine for Tetanus.—A Mexican boy, about twelve years old, had tetanus, and cocaine was prescribed in the usual sized dose, but the druggist by mistake gave ten times the amount. This was not known till after the remedy had been given, but the result was *complete recovery!* The same was tried in another case with a similar result.—BOWMAN, in *Medical World.*

Corn Silk in Albuminuria.—This remedy is a valuable one. A gentleman aged sixty-three could apparently get no relief from anything in the market. In sheer desperation I began giving teaspoonful doses of tincture *Stigmata maydis* every four hours, and in less than a week perceptible improvement set in which continued up to the present.—J. H. COOK.

Asthma.—

℞ Tincture lobelia, 1 drachm.
Ammonium iodide, 2 drachms.
Ammonium bromide, 3 drachms.
Syrup tolu, 3 ounces.

Teaspoonful every one, two, or three hours.

—*Medical Review of Reviews.*

Burgundy Pitch.—Employed as a plaster this is often of service to females who complain frequently of weakness and some pain in the lumbar region. It stimulates the surface, excites a pleasant glow, and gives a mechanical support to the parts.—*American Journal of Surgery and Gynæcology.*

Gunpowder Stains.—A satisfactory remedy is a solution of corrosive sublimate, four grains to the ounce of water, applied by means of a quill to the entrance of each grain. Suppuration is induced, when the grains can be expelled by mild pressure.—HARTMAN.

New Application of Blister.—A cantharidal plaster applied over the thickened tissues around a callous ulcer is one of the most rapid methods by which the disappearance of the exuded materials can be brought about.—CHEYNE.

Hæmorrhoids.—

℞ Oil of tar, 15 drops.
Extract belladonna, 10 grains.
Glycerin, 2 drachms.

—*Revue de Thérapeutique.*

Absorption of Glonoin.—Lewes says that young girls employed in nitroglycerin factories become plump and rosy-cheeked, owing to improved heart action through absorption of the drug.—*Indian Lancet.*

Bryonia and Gelsemium.—Bryonia is one of the best remedies for the sharp pains of peritonitis and la grippe. In the severe headache of the latter gelsemium may also be used advantageously.—SNYDER.

Myalgia.—Ammonium bromide, ten to twenty grains three or four times daily, is recommended for myalgia and muscular rheumatism.—*Philadelphia Polyclinic.*

Diabetes.—Some severe cases with rapid loss of weight may be kept back from the cachectic stage by the use of calcium.—*Medical Record.*

Mumps.—Turpentine internally is being lauded as a specific and prophylactic.—*Clinical Recorder.*

Salol.—This drug is contraindicated in any form of nephritis.—SAMUELS.

Medical Progress.

THE INFLUENCE OF EMOTION. — When Omar, the successor of the Prophet, preached in the temple of Jerusalem, he warned his hearers to "resist the temptations to suicide, which, in times of trouble, Allah sends alike to the just and the unjust."

"Permit me a question, sire," said a white-bearded elder of the synagogue; "how can you expect us to believe that the Most High tempts us to our own destruction?"

The Caliph, says the historian Weill, stopped long enough to turn to his armed attendants. "Keep an eye on that old man," he said; "if he speaks another word, cut his head off."

There was no further interruption, but the rabbi's question remained unanswered, and several writers on the influence of emotion have failed to explain how nature can be supposed to lure us to our ruin by tempting us to indulge in health-destroying passions. Is there anything abnormal in violent fits of rage? or is their pernicious effect limited to degenerate individuals with a deficient physical resisting power?

It is a curious problem, and specially apt to be elucidated by reflex lights from the habits of our instinct-guided fellow creatures. Animals, too, are swayed by emotions that often react swiftly and unmistakably on the functions of the automatic organism, and sometimes with the fatal effect of a strong poison; and affections of that sort are by no means limited to domesticated creatures whose natural disposition might be supposed to have been modified by long confinement.

In the wild-oats period of the great West, Governor Pacheco, of California, once lassoed a big old grizzly, and with the assistance of his cowboys tried to drag it alive to his mother's ranch. They wanted to chain him to a tree and have a little fun next Sunday, besides hoping to amuse the old lady with an undiminished programme of his antics; and in the meantime tried not to hurt him, but fetch him along by what the Mexicans call the *al traves* mode of transportation:

Held by two lariats, the prisoner is provoked just enough to make a rush for one of his captors, and is permitted to place himself in the rôle of a pursuer, as long as he pursues in the right direction. Should he balk, they re-excite his vindictiveness, and hold him back only if he happens to develop a dangerous rate of speed. In that manner they trotted him along some six English miles, when he suddenly refused to budge another step, and presently collapsed, straightening out with a quiver, as if in the throes of the *rigor mortis*. Suspecting a trick, they approached him with caution, and pulled him to and fro for awhile, till a closer examination proved that the old ogre was dead. Considering the thickness of his fur and the enormous development of his neck muscles, the idea of his having been choked to death was wholly out of the question. He could not have been worn out by overexertion, either, for they had given him a rest about every quarter of a mile, and the only tenable explanation was the conjecture that the old fellow had died of rage—of checked and restrained rage, which often reacts more mischievously than an unbridled fit of passion—a fact often experienced by the victims of asthma, who instinctively court solitude to avoid the risk of being provoked under circumstances that oblige them to control their anger. An ebullition of wrath, choked down in the interest of peace, is sure to "cut their wind," often bringing on a gasping fit within a few minutes, just as dyspeptics lose their appetite if they have been obliged to swallow their rising choler.

A still more characteristic case of reacting fury occurred a few years ago in the shop of a Cincinnati animal dealer. A trapper from the Kentucky mountains one day brought him an old wild-cat, and helped him transfer his captive to a wire cage that had held coons, and even young bears, without any risk of a jail delivery. But the next day a customer with a meddlesome rat-terrier entered the shop during the momentary absence of the proprietor, who was soon after summoned by his boy-of-all-work with the announcement that his Kentucky cat was tearing the wires, and would be out in another minute. Snatching up a scoop-net the old expert hurried to the scene, and caught the rage-crazed brute just as it wriggled out of the cage and was making a dash at its yelping tormentor. It required all his strength to hold the spitfire down, but he managed it, while his boy dragged in a stouter cage, and relaxed his grip on the handle of the net only when he noticed that the cat had doubled up and was switching her tail to and fro in the agony either of death or of a convulsion fit. She had not been hurt in the least, except in her feelings, having been merely entangled in the meshes of the net that baffled her vindictive rush at the terrier.

The circumstances of this special case suggest an explanation of the proximate cause of the cat's death as well as of the origin and purpose of such rage paroxysms. Fits of fury, brought on by violent provocations, tend to affect the humors of the organism even to the degree of envenoming the saliva,

evidently for the purpose of thus furnishing weaker animals additional resources of self-defense, and incidentally moderating the enterprise of wanton tormentors. Even rats, weasels and squirrels can thus become formidable antagonists, and many facts could be mentioned in support of the theory that hydrophobia is developed by the protracted torture of chained dogs, pining intensely and in vain for freedom. It is certainly a suggestive circumstance that the alleged influence of the dog-star is so rarely noticed in the East, where myriads of ownerless curs suffer from heat, droughts, and hunger, but are permitted to run free the year round.

In the Philippine Islands, where tribe after tribe of aborigines have been subjected to the yoke of Spain, the Negritos, thanks to their talent for the manufacture of arrow poison, have held their own against all Caucasian comers; and there is nothing improbable in the conjecture that many species of our dumb fellow creatures have solved the problem of survival in a similar manner: those gifted with the faculty of evolving a protective virus at short notice prevailed in the struggle for existence, the rest succumbed. The permanent poison-bags of serpents and venomous insects have no doubt been developed in the same way, and if we consider the number of their transient imitators, it might be said that there are only few absolutely non-venomous creatures.

"Malice," says Seneca, "has to swallow half its venom," and the above mentioned reactions of the rage virus may have served the purpose of limiting the prevalence of an, after all, odious accomplishment.

Grief, too, can kill. Captive animals of many species are apt to pine away in spite of kind treatment; their appetite is gone, they refuse to eat, or merely munch a mouthful in a listless way, and actually die of starvation in the midst of abundant food. The loss of their young has now and then a similar effect, and Brehm's account of a species of parrakeets known as the "Inseparables," seems to be founded on fact. The little pets can be kept only pairwise; they are billing and courting all the day long, and if one of them dies the other soon follows it.

The ministrations of special keepers reconcile their favorites to the sorrows of prison life, and the removal of that protector is enough to turn the precariously balanced scales; in the city zoo of Munich, Bavaria, was a drunkard who avoided discharge by his habit of devoting all his sober moments to the tenants of the monkey house; they were absurdly fond of him, and the superintendent had to connive at his escapades, being convinced that his departure would result in the death of several hundred dollars' worth of his four-handed friends.

Solitary confinement will kill nine out of ten wild animals within a year, thus illustrating the truth that nature never hesitates to apply the panacea of endless slumber to evils for which there is no other remedy. And it is no paradox to say that the termination of a hopeless existence may promote the interests of the species too. When the evils of life clearly outweigh its blessings, the physical organism cannot help sharing the afflictions of the mind, and the disabilities thus engendered would have been transmitted to the progeny of sorrow-burdened individuals if that risk had not been obviated by their timely removal.

The strange influence of emotion in its effect on the secretions of the mammary glands can, however, hardly be explained in that manner, since it manifests itself even in transient fits of anger, due perhaps to momentary and by no means irremediable grievances. Shall we suppose that for the sake of such annoyances nature should have taken measures to destroy the child of the excited mother? For the effect, as distinct from its biological necessity, admits of no doubt whatever. Von Ammon mentions an episode of that kind in the house of "a carpenter who fell into a quarrel with a drunken soldier and was set upon by the latter with his drawn sword when his (the carpenter's) wife suddenly threw herself between the combatants, and wrested the sword from the soldier's hands. Neighbors separated the men, and the woman, still trembling with excitement, sat down and took up her child from the cradle, where it lay playing, and in the most perfect health, never having had a moment's illness; she gave it the breast and in so doing sealed its fate. In a few minutes the child left off sucking, became restless, panted, and sank dead upon its mother's bosom."

The occurrence would defy explanation if it were not evidently one of the cases where instinct would have been a safer guide than the sense of routine duty. "Mental anxiety," says Sir Astley Cooper, "alters the quality of the milk, and also tends to *diminish its quantity*. The reception of a letter which leaves the mind in anxious suspense lessens the draft, and the breast becomes empty. I am informed," he adds, "by a medical man who practices much among the poor, that the apprehension of the brutal conduct of a drunken husband will put a stop for a time to the secretion of milk."

Rage has an analogous effect upon nursing animals. A pointer bitch with a litter of pups

had her kennel close to a public pike road and had a hard time fighting intrusive curs; but after every serious scuffle she took the precaution to retire to a nook between the fence and her wooden nursery, evidently wishing to avoid the approach of her puppies for a little while. A vague apprehension of the possible results may have haunted her mind, but the proximate motive was the simple fact that the secretion of milk had temporarily ceased. By yielding to a similar impulse the carpenter's wife could probably have saved her baby. The "draft" of milk had diminished, or stopped altogether, but recommenced when the child was induced to take its mother's breast, and the virus intended for that drunken soldier thus proved its efficacy in a dreadful and unexpected manner.—Felix L. Oswald.

Immunity to Poisonous Insects.—That a relative immunity is acquired after a certain number of bee-stings is, I believe, admitted by most bee-masters. But from the few inquiries I have been able to make the degree of immunity varies very much in different individuals, though when acquired it would seem to be permanent, or at least long-lasting.

A certain degree of immunity is acquired also by most persons against the stings of those varieties of insects which in Norway are commonly called *myg*, and in East Anglia, to the great indignation of those who really suffer from them, *gnat*. The reaction of different individuals to the stings of these mosquito-like insects is very different in degree, but on the whole the resident suffers less than a newcomer. A curious fact is that in many susceptible persons there is a distinct periodicity in the phenomena which follow a sting. The immediate result is a small flattened wheal, three to four millimeters in diameter, of a pale color, but surrounded by a zone of pink injection. This is attended by itching, but both wheal and itching have gone in less than an hour. About twenty-four hours later the part begins to itch again, and in a few minutes a hard, rounded, deep-red papule, about ten millimeters in diameter, appears, and is quickly surrounded by an area of œdematous skin. The formication is intense, and in the affected area, while ordinary tactile sensations are dulled, those for temperature and painful sensations are exaggerated. In two or three hours the itching diminishes and the œdema disappears, leaving a small red papule which itches little, if at all. After another interval of twenty-four hours, or more often rather less, all the phenomena recur, but with diminished intensity; a third, a fourth, and even a fifth recurrence usually takes place, but on each succeeding occasion the itching and swelling are less severe. After the periodic exacerbations have ceased, a small indolent papule persists for weeks, sometimes for months. This periodicity is not observed in all persons, and is certainly most marked in those who suffer most severely. In the same individual the reaction is very much greater after some bites than after others.

Whether the "mosquito" injects a toxin, or whether it is merely in some instances the carrier of a pathogenic microbe, might be worth ascertaining.—Dawson Williams, in *Nature*.

Coca Wine and Its Dangers.—There is no doubt that the steadily increasing consumption of coca wine is a subject which calls for comment and investigation. We find that coca wine and other medicated wines are largely sold to people who are considered, and consider themselves, to be total abstainers. It is not uncommon to hear the mother of a family say, "I never allow my girls to touch stimulants of any kind, but I give them each a glass of coca wine at eleven in the morning, and again at bedtime." Originally, coca wine was made from coca leaves, but it is now commonly a solution of the alkaloid in a sweet and usually strongly alcoholic wine. According to the Board of Trade regulations a wine containing a grain of any salt of cocaine in the ounce may be sold without a wine license; this may be the explanation of the frequency with which we see bottles of "coca champagne" exhibited in the windows of the drug stores. Not long ago a physician reported that he had experienced considerable inconvenience from taking a glass of standardized coca wine which he had mistaken for an innocuous beverage. Still more recently we have been furnished with details of the case of a man who, thinking to abjure the use of alcoholic stimulants, drank coca wine so freely that he died of delirium tremens. School mistresses, as a rule, have a deep-rooted belief in the efficacy of the popular drug, and give it to their pupils on the slightest provocation, in complete ignorance of the fact that they are establishing a liking not only for alcohol but for the far more insidious and pernicious poison, cocaine. The child who is the innocent victim of cocainism is wayward in disposition, is restless and disturbed at night, and is incapable of prolonged application. The mania for taking narcotic stimulants is wide-spread, and is a distinct source of danger to the national health. It is difficult to say at present what steps should

be taken, but it is obvious that at no distant date some restrictions will have to be placed on the sale of coca wine and its congeners.—*Dominion Medical Monthly.*

Teaching Anæsthesia.—At most of the hospitals the necessity has been admitted within the past few years of giving the students some instruction in the administration of anæsthetics. Any one who ever comes much in contact with the young men who have recently graduated, and happens to be a witness of their first essays in the matter of the administration of anæsthetics, can scarcely avoid the conclusion that the instruction they have received therein has not been as efficient as it should have been. Indeed, much evidence could be brought forward to show that the medical schools have not as yet properly grasped the expediency of placing the instruction in anæsthetization upon a proper, systematic, and complete basis. Apparently all that is ever done in this direction is to allow the students to administer an anæsthetic under the supervision of the hospital anæsthetist, and as soon as a certain number of such administrations have been given the student is able to claim he has successfully given an anæsthetic upon so many occasions. But something more than this is required in order to learn the art and practice of anæsthetization. Obviously, the "instruction" should not be limited merely to giving an anæsthetic, just as an uneducated person could give it, with an expert in the subject supervising the process. Seeing the importance of this branch of medical science, the medical schools would do well to arrange for a course of lectures upon the administration of anæsthetics so that the science and practice of the subject could be properly and regularly taught. Until some improvement is effected in this regard, students can never be equipped with that measure of knowledge which they should possess on leaving their *alma mater*. Of course proficiency can only come from actual practice, but the contention is that there is much more of the subject which could be taught were the opportunity of learning placed in the way of the student.—*Medical Press.*

Rare Case of Intussusception.—This was due to invagination of Meckel's diverticulum,—a process sometimes found projecting from the lower portion of the small intestines, like the finger of a glove, and that represents the persistent remains of the Vitelline or Omphalo-mesenteric duct, which at the end of the first month of fœtal life connects the yolk sac with the intestines. This fœtal remnant may be attached anywhere along the intestines, and give rise to a variety of complications that readily suggest themselves. In this case the diverticulum became invaginated with the gut, and in turn caused a further invagination of the small intestines.—*Langsdale's Lancet.*

Effect of Corsets.—Meinert, of Berlin, has been conducting a series of interesting studies, which indicate that even the so-called "proper" use of the corset by girls entering the period of puberty is the causal factor in producing chlorosis. The corset displaces the stomach and intestines to such an extent as to interfere with digestion as well as causing irritation of the solar plexus. He records a case where the stomach was displaced two inches below the umbilicus, which recovered in eighteen months after stopping the use of corsets.—*Medical Review.*

Vomiting and Abdominal Surgery.—Uncontrollable vomiting after an intra-abdominal surgical operation is usually a sign of interference in the circulation of a vital organ. Its presence is far more ominous than an abnormal pulse, respiration, or temperature, and when it has persisted for more than twenty-four hours without abatement, the idea of reopening the abdomen should be entertained with the hope of relieving some internal strangulation or tension.—*International Journal of Surgery.*

Stone in Bladder.—Renal and vesical calculi, compounds of uric acid and urates, are not likely to be revealed by Roentgen rays, especially if the latter have to pass through the adult skeleton to reach them. But on the other hand, stones which have phosphates, or phosphate or oxalate of lime in their composition, can be discovered.—Morris, in *Middlesex Hospital Journal.*

Suppurative Otitis.—Discharge from the ear is always a symptom of serious import, because it so often indicates the presence of an abscess in the middle ear, which may eat through the thin, bony wall, and set up a fatal inflammation of the brain.—*Summary.*

The Medical Age.

Vol. XV. DETROIT, MAY 10th, 1897. No. 9.

Original Articles.

MODERN TREATMENT OF DIPHTHERIA.*

BY DOCTOR J. C. WILSON.

In treating of diphtheria one must thoroughly realize he is dealing with a highly infectious disease, one which from its onset requires the most careful energetic management. Of first importance are the hygienic measures essential for the protection of patient as well as for prophylaxis of the household. The former should be placed in a room from which everything has been removed that is not directly necessary to his well being—carpets, bric-a-brac, draperies, unnecessary furniture, etc. The temperature of the apartment must be kept even, at about 70° F., and measures taken to secure thorough ventilation. Only the nurse, the doctor, and perhaps the nearest relative, should be allowed to come into contact with the patient, strict care being taken to keep all others out of reach of infection.

Personally I find one of the most satisfactory agents in treatment of this disease to be steam, especially so when it is laryngeal in character. The false membrane does not adhere so closely to the underlying tissues of the larynx as in other localities, and consequently not only is it more easily reached by steam, but it is more readily affected by it. I may therefore be permitted to go into detail in describing my method, for upon the thoroughness with which it is applied depends the measure of success. All that is required is a kettle, such as is found in every household; a tent, preferably of some waterproof material, such as a mackintosh or rubber blanket, though in great urgency almost anything may be used as a substitute. One will add greatly to the efficacy of the treatment, and consequently to the comfort of the patient, if to every five parts of water in the kettle one part of alcohol is added. This steam-bath or inhalation not only is extremely useful in softening the false membrane, but in securing its sloughing and ejection. If it is impracticable or impossible to use a kettle in this way, a fairly good substitute is the vapor generated by throwing small pieces of lime into a basin of water—large pieces create too great a commotion and the water is apt to be splashed about to considerable distances.

Cases in which respiration is difficult may frequently be alleviated by a warm bath, if at the same time cold applications are made to the head and chest; this seems to have the faculty of stimulating the nervous system, of inviting deeper and stronger respiratory efforts, and tends to render discharge by cough more effectual.

The use of disinfecting sprays is indicated from the onset, for no matter how slight the attack they will aid to prevent secondary infection; therefore, if the patient is old enough it is well to have him or her rinse the mouth with either a one-to-twenty Labarraque solution, one-to-one-hundred euthymol solution, or a one- or two-per-cent. solution of carbolic acid. Where children are too young to gargle their own throats and mouths, this should be done for them,—a procedure that will require no little tact and skill on the part of the medical attendant.

It is recommended by many that the gargles or antiseptic solution be applied by means of swabs of cotton or by soft sponge, but in my experience a long, slender, hard-rubber or glass syringe is far superior and more convenient both for patient and attendant. I use a long glass syringe with a sharply bent point, by which the liquid can be injected into the crypts and folds of the posterior part of the mouth, and even between the false exudate and the mucous membrane;

*Lecture at the Jefferson Medical College.

but in employing this it is necessary, in children too young to realize the importance of the procedure, for the operator to look out for himself as well as for them. In the first place, it is well for the latter to protect his own mucous membranes by fastening a towel loosely over nose and mouth. The child should be well wrapped in a shawl or quilt, not only to protect from cold, but also to prevent it from interfering with the movements of the physician. To protect the syringe from injury a cork should be placed between the molar teeth.

While the solutions just mentioned are excellent, undoubtedly there are two still more efficient, viz., dioxide of hydrogen in a ten to fifteen volume solution, and Loeffler's solution, which latter is composed chiefly of menthol, toluol, sesquichloride of iron, and absolute alcohol; in the management of diphtheria, Loeffler's fluid is undoubtedly the most efficient agent at present known.

The internal treatment of diphtheria is of importance. The muriate tincture of iron has long been a classic remedy, and is to be recommended not only for its astringent action but also because of the excess of acid contained: it is especially active in combating the poison generated by the disease. It was formerly customary to combine chlorate of potash with the iron, but this is not justifiable, for the potash salt is decidedly irritable to the kidneys, and in diphtheria there is always a tendency to renal congestion and inflammation. Mercury too is often extensively employed, and it is now known that the system of a diphtheritic patient is extremely tolerant thereto; consequently, calomel as a laxative at the onset, and then in one-third and one-fourth grain, and even larger doses, every two hours, will be borne for days, frequently, with no evidence of salivation; corrosive sublimate in moderate doses every two or three hours has also been employed extensively. Should much pain or excessive purgation occur, opium in the form of paregoric can be advantageously added to the mercurial.

Should albuminuria occur the tincture of chloride of iron is usually very effective as a diuretic, hence is strongly indicated; also milk in large quantities; alkaline waters; large quantities of ordinary drinking water; bitartrate or acetate of potash; and vapor baths.

As expectant treatment was long since demonstrated of no avail, there has recently come to the notice of the profession a non-medicinal method that bids fair to revolutionize the management of this disease, viz., the so-called antitoxin treatment, or use of immunized blood-serum. At present there are great differences of opinion among medical men as to this remedy, and there is still a large and active proportion of practitioners who are opposed thereto; there appears to be an impression that antitoxin is in reality a failure, and that the only reason it is still advocated is the large amount of money invested in laboratories for its production; it has even been claimed that the medical press is continually subsidized in attempts to force it upon the public. But as a matter of fact the brilliant observations of Behring, Roux and others appear to be confirmed daily by independent observers everywhere throughout the world; and only recently Doctor Welch, of Johns Hopkins University, made a series of observations which are convincing to all familiar with the accuracy of his work. Again, the American Pædiatric Society at its meeting in Montreal seemed to place the matter beyond all doubt.

There are three general facts on which the antitoxin treatment rests:

Larger animals, such as the horse, which are not highly susceptible to diphtheria, are rendered immune by the culture of the Klebs-Loeffler bacillus:

Blood-serum from an animal so treated introduced into a suspected animal renders it immune:

This prepared blood-serum has in itself an important remedial action upon diphtheria.

In twelve, eighteen or twenty-four hours after the injection of a proper solution of antitoxin, the picture changes. There is an improvement in both the local and general symptoms; the swelling of the fauces subsides, the membrane begins to disintegrate, and at the same time the fever disappears, the pulse becomes slower, and the patient improves in every way. When the case is of only moderate severity and the injections are employed quickly, the improvement both locally and constitutionally is very marked.

The sooner the injections are made the better the results; therefore in using this treatment it is not wise to temporize or delay lest the patient meantime become moribund.

The giving of these injections requires a large hypodermatic syringe without any especial peculiarity except that it shall hold from ten to twelve cubic centimeters of serum.—It is well to have the case containing the syringe made of metal so that both it and its contents can be sterilized by placing in boiling water or in a five-per-cent. solution carbolic acid. The piston-head should be of asbestos, so that it can be sterilized by being placed in the flame of an alcohol lamp. The skin should be cleansed with soap and ether, and the injection made deep into the subcutaneous tissue; the best point is either between the shoulder blades or on the thigh. No pressure should be used to force the solution into the adjacent tissues after it has been injected, and the point of puncture should be closed by applying over it a strip of rubber plaster or collodion. The injection should be followed by no local reaction or pain. As to the dose used, it is well to follow the directions which come with the solution. It is only interesting to note in this connection that it is the general consensus of opinion that a somewhat larger dose than was given formerly can be used advantageously.

Philadelphia, Pennsylvania.

CHRONIC SUPPURATION OF MIDDLE EAR.

BY SETH SCOTT BISHOP, M.D., LL.D.

There appears to be a considerable difference of opinion among aurists concerning the relative merits of the wet and the dry methods of treating chronic suppurative inflammation of the middle ear. This was illustrated a few days since when a well-informed and influential gentleman related the experience of one of his friends who was about to be brought to the city to undergo a mastoid operation, rendered necessary, he understood, by a wrong method of treatment adopted for a suppurating ear. The first physician in charge used the dry method, to which the aurist who was subsequently consulted attributed the mastoid complication. On the other hand, a very prominent and competent aural specialist has repeatedly condemned the use of the syringe for suppurating ears, believing it to be pernicious and fruitful of deplorable results. For my part, I am at a loss to understand why either of these methods should be the subject of disapproval, for each one is well adapted to certain cases, and both are effective in different conditions that obtain in the same disease.

In the average case of suppuration the patient comes with his middle ear and meatus filled with pus. Often the desquamated epidermis and pus are inspissated and require the disintegrating action and friction of a warm injection to remove them, so that the diseased tissues beneath may be reached by medicaments. It may prove somewhat interesting to detail briefly the methods, both wet and dry, that have generally afforded the most satisfactory results, not only in my own hands but in those of my clinical assistants, of whom there are nine and their experience not inconsiderable.

It is our practice to have the suppurating ears first cleansed with a solution of bichloride of mercury—1 to 5000—as warm as the patient can bear with comfort. A quart or more is used so as to insure that all the discharges are dislodged and the diseased surfaces exposed to the action of the treatment that is to follow. The "Fountain" syringe is not nearly as effective for this purpose as one that can be operated by a soft-rubber hand-bulb, like the continuous-flow Davidson "Alpha." With the latter as much or as little force as is requ red to accomplish our object is easily exerted, while the current of the "Fountain" is too feeble unless the bag is suspended higher than the tops of regular irrigator stands. The force of the current should be so regulated as not to produce nausea, vertigo, or faintness. This irrigation is resorted to on the same principle that prompts its employment in general surgery for the purpose of cleansing and medicating abscess cavities.

The second step consists in inflating by the Politzer method, or with compressed air and vapors like the ten-per-cent. camphor-menthol nebula. The column of vapor medicates the inflamed membrane and throws any remaining discharge out of the Eustachian tube

and middle ear into the external canal, from which it is easily removed by means of the cotton tuft on the carrier.

The third step consists in treating the ear to dioxide of hydrogen (H_2O_2). With the head inclined to the opposite shoulder, the ear is filled with the dioxide warmed just enough to be comfortable. Although it has been claimed that warming this fluid rendered it ineffective, I have demonstrated many hundreds of times that slight warming does not impair usefulness. The dioxide is allowed to remain in the ear until effervescence ceases, usually about five or ten minutes, according to the amount of pus present and the purity of the remedy, which must not have a strong acid reaction lest it cause pain, and should contain not less than fifteen volumes of available oxygen; the dioxide decomposes pus-corpuscles, during which action free oxygen is liberated to exert its germicidal power upon bacteria. The active effervescence dislodges débris, and its mechanical action brings to the surface material that even syringing fails to dislodge — for example, diiododithymol that may have remained from previous treatment. This "boiling out" of the middle ear appears to cleanse the attic even better than the intra-tympanic syringe, and no unpleasant results so far as I am aware have ever followed its use.

Now follows the fourth step, the drying of the parts with absorbent cotton on a holder, after which a drying powder like aristol, diiododithymol, boracic acid, etc., is dusted over the cavity with the powder-blower, when the mouth of the canal is closed with cotton. Diiododithymol is generally given the first choice because it never causes pain, does not interfere with hearing by clogging the canal or impeding the movements of the drumhead and ossicles, and it is moreover antiseptic, anæsthetic, and a marked cicatrizant. If the discharge does not show perceptible decrease in the course of a week or two, it is advantageous to substitute boric acid in the finest powder for the diiododithymol dressing, or the boric acid may be thrown over the coating of the latter, as it sticks tenaciously to the surface of the tissues; this adds the drying effect of the boracic acid to all of the excellent qualities of the aristol and diiododithymol, and constitutes an ideal treatment for such individuals as have an idiosyncrasy against boric acid. I have met a few instances in which persons with this disease showed a great susceptibility to it and suffered severe pain after its use, although they are oftener encountered among acute cases.

After the first few treatments of this kind it is advisable to resort to an entirely dry method, relying on absorbent-cotton dryers, inflation, and powders, for cases often do much better with the dry than with the wet method. The discharges sometimes cease after three or four treatments, and occasionally after the first one. The results of painstaking methods are more surprising to the surgeon than to the patient, who may have been harrassed for long years with the annoying discharges.

Iodoform is not to be abandoned, notwithstanding its disgusting odor. It is indicated when the odor of the discharge is offensive, suggesting the presence of caries or necrosis of bone. Both silver nitrate and zinc sulphate were discontinued by me many years ago as far as this malady is concerned, and salicylic acid, highly recommended a few years ago, has proved a total failure; moreover, the violent irritation of the nares and the attacks of sneezing provoked by unavoidable inhalation of salicylic during insufflation would preclude the possibility of its employment were it not otherwise impotent.

When the perforation is too small to admit of free drainage, and it is suspected that the discharges are retained in the attic or the mastoid antrum, it should be enlarged. But there are frequent instances in which the discharge does not diminish after thorough efforts at cleansing, disinfecting, and medicating; this failure may be owing to the inefficacy of the means employed to remove all the retained secretions and the consequent failure of medicaments to reach the diseased surfaces. In such cases Bishop's ear aspirator may be employed to evacuate the middle ear and its accessory chambers of the discharges that have been held back. In many cases that have appeared to be intractable the adoption of this mode of aspiration has been followed by a rapid recovery.

It would be unprofitable in this connection to discuss the treatment of those forms of

middle-ear suppuration that are complicated by the presence of granulations, caries, and necrosis of the bone, cholesteatoma and involvement of the mastoid cells; such is outside of the scope of this paper.

Chicago, Illinois.

IRRITATING EFFECTS OF NATURAL GAS UPON TRACHOMA.*

BY JOHN J. KYLE.

I desire in a general way to call attention to the irritating effect of natural gas upon the conjunctiva, with special reference to its effect in the production of trachoma.

The Indiana gas belt covers a territory approximately of 2500 square miles, with a population of 300,000. The general characteristics of the natural gas are its combustibility and chemical destructibility. The atmosphere is constantly permeated with the gas, and in consequence delicate fabrics, draperies, wall-paper, books, leather, upholstery, surgical instruments, metallic instruments of all kinds, are destroyed or tarnished. To the great annoyance of medical men the gas seems to have a special predilection for rubber appliances, especially Politzer bags.

Eminent chemists disagree regarding the relative constituents of natural gas. Eighty-five per cent. is marsh gas which is composed, by weight, of seventy-five per cent. of carbon and twenty-five per cent. hydrogen. The burned gas which I will have occasion to refer to is composed of carbonic acid and water, the relative amount of each constituent, differing in every case, being governed by the combustion.

It will take but a brief stay in the gas belt to convince one of the singular irritating effect of the gas. During the winter months, on account of the cheapness of this fuel, there is a great tendency to overheating and bad ventilation; again, there is escaping burned gas from stoves and jets that fills the atmosphere, inducing carbonic-acid poisoning.

I have observed that in this region all cases of conjunctival inflammation which respond but reluctantly to the best efforts to combat the disease, in every instance after gas fuel and light has been substituted by coal, wood and lamps, in a short time show marked evidence of benefit.

The products from imperfect combustion from jets is the most potent factor in stimulating the growth of trachoma. In many cases where sleeping apartments are illuminated for any length of time, eyelids otherwise normal appear swollen and congested in the morning on awakening, and there is local irritation in the nose and throat, in acute cases the mucous membrane being dry and swollen with but scanty secretion. But with the substitution of electric light, or lamps, a change is at once noted. This is a common occurrence, one I have personally experienced. In these cases the excretion from posterior nares is often tinged with blood, though after a time the tissues seemingly adjust themselves to the change, and return to a normal condition; this adjustment may take weeks or months, or sometimes never occurs.

The population of Marion, Ind., and immediate region is cosmopolitan, being made up of natives and emigrants from eastern States, Belgians, French, Welsh, Indians, and a very large settlement of Negroes.

Burnett's valuable researches have established the peculiar immunity of the negro race, as well as the geographical distribution of trachoma; and as for the Indians of this region, so far, among seven hundred, all civilized, I have failed to see or hear of a single case; but this rule will not apply to the Indians of the Northwest, where all forms of eye disease develop prolifically.

Throughout this region the native whites are those most susceptible. Among twenty-five cases (an unusual number) under observation during the year 1896 all were native-born. Neither was the malady confined to one locality, occupation or station in life. In three cases the disease was monocular.

The balance of proof is still in favor of the disease being contagious and infectious, and personally I believe in the transportation from person to person. Whole families under observation have become inoculated, father, mother and children—in one instance, mother and three children—and all now show the characteristic conjunctival cicatrization.

*Read before the Western Ophthalmological, Otological, and Laryngological Association.

I recognize two distinct stages, acute and chronic; but I do not believe that the cicatricial stage of the disease is a subdivision of trachoma — to my mind it is rather the sequela of the second or chronic stage. When scar tissue takes the place of granulation the disease becomes anatomically and pathologically a new disease—*cicatricial conjunctivitis.*

A clinical difference is recognized between trachoma and follicular conjunctivitis, which latter are briefly tumefied "lymph follicles appearing only on the lower lid, about the size of a pin-head, transparent and vascular, arranged in rows parallel to lid margin," a disease which also thrives very prolifically in this region. Furthermore, cicatricial change is not a pathognomonic sign of pre-existing trachoma. The disease may be treated and cured without leaving signs behind, but such results occur only when the patient is seen early and granulations are few; "the tendency, however, of each granulation is to leave a scar due to shrinking of conjunctiva."

Spontaneous recoveries are reported. In the many surgical methods advised for relief —scissors grattage, expression by expression forceps — the utmost care is necessary. Graeff* very aptly portrays the ill result when he says: "I saw several times, in our clinic, cases which had been operated upon by the Heisrath method at Koenigsberg that exhibited the saddest sight imaginable."

Ultimate recovery depends upon careful treatment, cicatricial change resulting as the rule; it is necessary therefore to avoid adding a tendency to such a condition. The first step should be the correction of any interference with the perfect drainage of the conjunctiva; and if there be any occlusion or inflammation of the duct, it should be divided and thoroughly syringed with a mild alkaline solution, thus restoring and keeping in a healthful condition.

One-half per cent. solution of pure iodine crystals, brushing on the conjunctiva, after thorough cleansing, has brought me very satisfactory results. The chief points to be borne in mind are:

Careful attention to drainage:

Cleanliness, attention to nutrition and ventilation of apartments; the substitution of lamps for jets:

Complete removal of adenoid tissue by surgical methods:

Careful washing of conjunctiva with solution bichloride (1 to 5000), followed by application of iodine solution, with massage as an adjunct:

The occasional use of the copper sulphate in stick form.

Marion, Indiana.

Archives of Ophthalmology.

DEVELOPMENT OF ACUTE INFECTIOUS DISEASES.

BY J. M. EMMERT, M.D.

At no time in the world's history has so much attention been given to water-supply for human consumption than at present. Numerous laws have been enacted by different states and nations to protect the health and lives of their citizens, all of which indicates the people have awakened to the fact that water may be a fruitful source of disease, especially of the infectious type. The danger of water as a disease carrier is not confined so much to large cities, however, where hundreds of thousands of dollars are spent in perfecting the modes and character of the supply, but rather in the country and smaller towns; in fact, the danger to large cities is not so great, because their supply is usually drawn from one source, which can often be guarded and protected against contamination.

Water used for consumption may hold in solution much that is impure—mineral, animal and vegetable decomposed matters—and yet not be necessarily harmful or detrimental.

But should this water, or water that is clear and limpid and entirely free from impurities of any kind, contain pathogenic germs, it is possible that such may induce the diseases peculiar to such organisms. It is well known to-day that there is nothing so prolific of typhoid fever as infected drinking-water; in fact, some believe that nine out of every ten cases arise from such source, and if this presumption is true, then typhoid fever is a preventable disease, and should be entirely stamped out of existence.

Other infectious diseases, such as cholera,

diphtheria, scarlet-fever, malaria, etc., may be communicated by water, but such is the exception rather than the rule. In discussing this subject, then, I will take typhoid fever as the best type of disease introduced into the system by water-supply.

The first question that arises is, How can drinking-water produce typhoid fever? The answer is simple: Because it contains the peculiar germ that produces the disease!

But how does the germ get into the water? This is a query that always confronts the physician, and for which he is expected to afford solution.

Cities are usually supplied from large bodies of water such as lakes and rivers. Most of the cities of this country are now supplied directly from these sources or from large reservoirs or depots, so that when water is infected it must take place before it enters the water system and while it is a part of the great body of water from which the supply is drawn. How this infection takes place has been demonstrated so many times in the last ten years that it is hardly necessary to repeat it here; notwithstanding, I will give a few examples: Chicago is spending millions of dollars upon her great tunnel under Lake Michigan, so as to get far enough away from the polluted water along the shore, which a few years ago produced an epidemic of typhoid fever so extensive that business men became alarmed at the criticism it was creating all over the country, thus interfering with commerce. New York had the same experience until she established her great Croton system.

The water-supplies of towns and small cities are different, in that their supply is partly from water-works, by direct pressure from reservoirs and wells. Plymouth, Pennsylvania, is a good example of a small city supplied by reservoir, the source of which was the small mountain stream. During January, 1885, a man who lived but a short distance from this stream, upon the hillside, became ill with typhoid; the discharges were thrown out upon the frozen ground, and when the ground thawed out the water running from the hillside carried the infection into the reservoir, when it soon found its way into the systems of the unsuspecting people, and 1200 inhabitants of Plymouth had typhoid fever with many deaths. This is not an isolated example, for medical literature is replete with such. Towns that have small water plants get their infection from a different source. The water usually supplied from these is free from contamination of any kind, because it is obtained from numerous drive-points which extend into the ground from fifty to one hundred feet, thereby getting below the surface water. These, before the advent of water-works, were supplied from wells, and many persons on account of the extra expense refused to accept a supply from the water-works. Those who patronized the latter turned their wells into cesspools which received the sewage of the houses, and thus these cesspools oftentimes became infected with pathogenic germs from the house, or from infected fæces that had been buried in the yard or garden and washed into the well. This infected water, by percolation, found its way into neighboring wells, and thus typhoid was carried. Unfortunately, the town in which I live is in this condition, and every case of typhoid fever for the last few years has been in families where they have used water from wells. There is a case reported by the Massachusetts State Board of Health that so fully demonstrates the dangers of infected well-water, is of so much interest on account of the diluted form introduced into the system, that I embody it:

> Typhoid fever occurred in Newton and Watertown among the customers of one milkman, and it was not learned that there were any other cases in the latter city among the customers of some sixty or more milkmen. Investigation showed that on account of the failure of this milkman's water-supply he had used water from the house of a neighbor where four cases of typhoid fever existed, and that he had used this water to wash his cans, without bringing it to the boiling point.

There is another prolific source of contaminating the water-supply to towns which have no sewerage system, viz., the privy, usually located on the back part of the lot, and used not only for fæcal deposit, but for all household slops as well, including excretions from the sick, which are often from those afflicted with contagious diseases. Thus the vault is infected and the infection soon finds its way into the water-supply. If these

infected fæcal deposits are not thrown into the earth closets of vaults, they are usually buried without disinfection, usually back of the house, and, as the well is commonly in the same locality, as soon as the spring or fall rains come this material is washed into the well and carried from there into the intestines of unsuspecting victims; and the family, and often the doctor, cannot understand where the patient caught typhoid fever.

Every physician ought to insist upon the burning of all discharges from patients suffering from infectious diseases, since this is the only safe mode of disposal. All explanations as how to disinfect discharges are generally of little avail.

What has been said about infected water-supply in towns applies to farms, with the exception of using the old wells as cesspools. Here we often find wells on a lower level than the house, barn or closet, and should the germ of any infectious disease be thrown either in the vault or barnyard, it finds its way into the water. It makes no difference how deep the well is, the danger from the surface water is the same.

The safety of the farmer lies in digging his well upon the highest point, so the geological dip is in a direction away from it, then raise the water by means of a pump into a tank, whence it may be carried through pipes to the dwelling.

The relation of sewer-gas to disease has been faithfully investigated and studied in the last twenty years, and the opinions of the profession undergone complete revolution. Only a few years ago sewer-gas was classed among the most prolific causes of infectious diseases, and it was taught that the escape thereof into a house induced typhoid fever, diphtheria, scarlet fever, etc. We now know that the escape of sewer-gas into a house can produce an infectious disease only in two ways: One is where the drain-pipes or sewer-pipes have been infected and the gas carries with it into the house the pathogenic germs; the other is where the vital standard is lowered by inhalation of the gas.

Here morbid material circulates in the blood and is deposited in the tissues, thereby not only interfering with organic function but destroying resistance through weakening the phagocytic action of the white corpuscles. This lowering of vital resistance invites renewed energy on the part of any pathogenic germs that may be in the system. In fact, the system becomes a good culture bed and disease soon manifests itself. The following is undoubtedly an illustration where the germs of the disease were carried by the sewer-gas:

In Lathroble, Pa., a gentleman and his family lived in a house which was connected with a new sewer. The connection was made with clay sewer-pipes or tiles without being trapped. Several old privies, connected with the public schools and three hundred feet above said house, were turned into this sewer. The fæcal odor in the house at once became so great that in a few days the family had to leave it. Three days later the eldest daughter developed diphtheria and died in five days. Four days after the latter event the youngest child came down and died in fifteen days. Undoubtedly, the bacilli had been deposited in the old privy-vaults and there found a suitable soil for growth, and when the contents were turned in the sewer they found their way into the house and consequently into the systems of its occupants. It is not so easy to give examples of infectious diseases developed by poisoning with sewer-gas which does not carry the pathogenic germs, but only prepares the system for its development; yet it is known that any deleterious matter by its devitalizing effects invites disease.

Though "cleanliness is next to godliness," it must be remembered that simply abating a nuisance is not always complying with sanitary rules, for ordinary cleanliness, as it usually goes, is far from scientific sanitation.

The doll or the beautiful fur cloak of the child who has died with scarlet fever is perhaps laid away for months or even years, and although perfectly clean so far as eye or nose can discern, is much more dangerous than the pile of filth in the back yard. Epidemics of scarlet fever have time and again started from clothing hung in the closet and brought out and put on children when the corresponding season comes around again. This is not to say, however, there is no danger in back-yard filth, for I believe this is a very fruitful source of disease, and oftentimes infectious disease. I am satisfied that

these diseases are sometimes caused by not only the child playing about these filth piles, but by fondling domestic animals that have been wallowing in them or on them.

A case of scarlet fever or diphtheria is developed in a house, and the alvine discharges, but partly disinfected, are thrown out on the ground or may be buried in the ground or ash heap. When the spring sun warms the earth, chickens, cats and dogs may be seen dusting and sunning themselves in these piles or the loose dirt that has been dug up. They soon have their hair and feathers covered with the dust and disease-bearing germs. These animals being fondled by the children is the direct cause of the disease.

Cats especially are prone to wander away from their homes for some distance, and I believe oftentimes are the mysterious and unaccountable cause of isolated cases or even epidemics. I am satisfied this was the case in a family attended by me some years ago, and where two children died:

It was in the country. A half-mile away from my patron there had been diphtheria, but there was no communication between the two families. There was a cat that visited the latter, but belonged to the first family; it came to the house and was fondled by one of the little children, who afterwards caught the disease and died.

Filth of any kind, such as piles of decaying vegetables and slops from the kitchen, etc., may not in themselves be so dangerous to health so long as they do not become culture beds for pathogenic germs, but the latter is sure to happen sooner or later, for the air contains more or less of germs in most seasons.

I have no doubt that flies hovering around these filth piles often carry diseases into houses and deposit the germ upon the food, and in this way it gets into the system.

Atlantic, Iowa.

NASAL REFLEXES.

BY G. C. EGGERS, M.D.

That intranasal diseases are the cause of many reflex neuroses has been verified by numerous writers and observers, so there is no longer any doubt that structural changes in the nasal fossa are the source of a multitude of curious symptoms, many times appearing far removed from this locality. These disorders are of more than ordinary interest to the general practitioner as well as to the specialist, because of the fact that many diseases or symptoms which previously resisted all treatment at once became tractable as soon as remedial efforts were directed to the intranasal tissues. All can probably recall cases of asthma which resisted all therapeusis until examination of the nasal cavity revealed polypi or other neoplasms, removal of which afforded immediate relief from asthmatic paroxysms. Cases of this character I am convinced are of much more common occurrence than is usually believed. Recently three such cases came under my observation.

The first was a boy, seven years of age, who for four years had a cough which would appear with the advent of cold weather and persist until spring. From the character of the cough, which was devoid of expectoration, and the fact all treatment directed to the chest failed to relieve, I at once suspected it to be of reflex character. Rhinological examination revealed a spur on the septum which was in close contact with an enormously hypertrophied turbinate of the left side. An attempt to pass a probe between the spur and turbinate body at once induced a violent fit of coughing. Relief of the abnormal condition was equally effective in dissipating the cough.

It may be queried why, in this case, the cough existed only during the winter months. The inspired air being, necessarily, much colder than in summer probably it tended to set up a congested or hyperæmic condition of an already hypertrophic and sensitive nasal mucosa, narrowing the lumen of the nostril and bringing into closer contact the two opposing surfaces—the result was, a reflex cough!

The next case was a boy of fourteen, brought to me with a history of having been treated for heart trouble, indigestion, and almost every disease in the category; was quite anæmic and of very neurotic temperament; had spells of insomnia and melancholia; pulse irregular and from 130 to 140 per minute. The peculiar expression of his

face led me to examine the nasal cavity, when both inferior turbinates were found extremely hypertrophied, so much so as to almost entirely fill the lower and middle meatus. In addition there was a spur on the septum which infringed on the left inferior turbinate. The middle turbinate of the opposite side was also hypertrophied. I sawed off the spur, and subsequently reduced the hypertrophies of the turbinates by application of chromic acid. The result was completely gratifying, as since he has had no more sleepless nights, no indigestion, and in fact is an entirely different boy.

The method of applying the chromic acid which I adopted in this instance is that of Pearce of Chicago, which he terms "submucous linear cauterization." An incision is made into the submucous tissue with an instrument which resembles a large myringotome, then a blunt dissector insinuated and by lateral and up and down motion introduced beneath the mucous membrane as far back as desired. Now a cup probe, in which chromic acid has been fused, is introduced, and caused to follow the track made by the dissector. This method, when it can be carried out, is every way preferable to the usual modes of cauterization, whether with acid or electrical cautery, as it induces no destruction of mucous membrane. This is a "distinct advance in rhinology," as will be admitted by all who have tried it.

The third case was a sufferer from supraorbital neuralgia and headaches for many years, and had gone the rounds of general practitioners and specialists—the former directed treatment to stomach, liver, and bowels; the latter looked for eye strain, and prescribed glasses, or treated the nerves. His history suggested some pathological condition of the intranasal framework, and examination revealed hypertrophy of the middle turbinate in the cavity of the afflicted side. Upon spraying the nasal cavity with a five-per-cent. solution of cocaine the pain almost instantly disappeared—a fact that cannot be attributed so much to anæsthetic effect as to the contractile power of the drug on the tissues, thereby removing the point of contact and consequently the cause of pain. Caustic applications to the hypertrophy so far reduced the enlargement that the patient is now entirely free from both neuralgia and headache.

It will be observed in the foregoing cases the structural changes which existed were hypertrophic. The assertion sometimes made that reflexes do not exist in atrophic rhinitis is not tenable; further, Fraënkel, Schmaltz and others report nasal reflexes in atrophic rhinitis; Mackenzie, too, claims to have found certain sensitive areas in the nose which are connected with reflex phenomena, and insists that a hyperæmic condition of these areas may induce reflex neuroses independent of hypertrophy. These hyperæsthetic areas are situated at the posterior extremity of the inferior turbinate, the anterior head of the superior turbinate, the mucous membrane of the vestibule, and the anterior extremity of the middle turbinate. In the cases just reported the reflex in two instances arose from disturbances or pathological processes over the sensitive area of the inferior turbinate; one from the hyperæsthetic area of the middle turbinate; these in a measure substantiate the claims of Mackenzie.

St. Louis, Missouri.

TREATMENT OF ACNE SIMPLEX.

BY ANDREW P. BIDDLE, M.D.

It is not my purpose to go into an account of the various clinical forms of acne, its innumerable causes, its diverse connection with other diseases, nor into a discussion of the many medicinal substances that have been advocated in its treatment. I wish simply to refer to its pathology and ætiology in just so far as they bear relationship to the therapy employed; also to submit a lotion which, in my hands, has proven of unquestionable value and, I trust, will prove equally so in the hands of others. I refer also only to those forms of the malady usually comprised under the general title of *acne simplex*.

My experience is based not upon a few weeks' experience, but upon the almost daily use of this method for a number of years.

Acne, though exceedingly common, is one of the diseases to which the medical profession at large gives but little heed, knowing life is in no way endangered, that it is chiefly a malady of adolescence, and usually disap-

pears with full adulthood. That it is common to adolescence is easily accounted for; that it persists for years is well known; and that in the majority of cases it is amenable to judicious treatment I have not the least doubt.

With the advent of puberty various functions of the body take on increased activity. With the growth of the hair incidental to this period, the sebaceous glands are especially called into more active life to supply necessary lubrication; and this energy, at first physiological, may soon be the source of functional disturbances; following the latter comes hyperæmia, then inflammation. First appears a superficial hyperkeratosis of the epidermis, extending to the follicle mouths, then from subsequent retention of sebum and its mingling with other detritus (coupled with the change incidental to the now imperfect state of the gland and the duct) comes the true comedo. Now, either as the mechanical result of the pressure of this constantly growing mass on the unyielding horny layer, in consequence of the irritation produced by this mass acting as a foreign body in the integument, or an irritation of the tissues engendered by the stagnation of the encapsuled sebum and aggravated by the presence of the specific microbe to which this altered chemical condition furnishes a most suitable soil for development, a circumscribed spastic œdema takes place, followed by inflammation of the gland and suppuration. Perhaps the sebaceous mass is thrown off, and resolution progresses, leaving cicatricial bands according to the extent and intensity of the inflammatory action. In any event, the process indefinitely repeated induces a reddened complexion and a thick or muddy condition of the face, which may even be pock-marked.

Usually, in all cases, there is an underlying, predisposing, constitutional disturbance, favoring local tissue-changes and the growth of micro-organisms. The cutaneous trouble is most often found in the debilitated —those suffering from anæmia and chlorosis; in girls afflicted with ovarian or uterine derangements, or both, as evidenced by an exaggerated state of the eruption at the time of each menstrual epoch; in the physically and mentally exhausted; in the strumous, whose very condition tends to greater suppuration of the glands; and especially in those suffering from some derangement of the alimentary tract, more particularly dyspepsia and constipation, even though the disturbance be so slight as apparently to cause no impairment of general health—this latter class includes by far the greater and more important cases, and fortunately those most amenable to treatment.

The majority of cases occur in those between fifteen and thirty years of age. Perhaps the patient is full-blooded, or his or her system "below par" with an inclination to sluggishness of the bowels—especially so if a female. There is a fondness exhibited for either rich, sweet pastry or stimulating diet; a tendency to neglect sufficient daily exercise to digest the amount of food taken; face or forehead (and perhaps the neck as well) covered with constantly forming pustular lesions, presenting as a whole a revolting appearance.

The treatment therefore must be both constitutional and local,—the former to aid elimination of the effete products, to correct errors of diet, to secure proper exercise, to build up the system if necessary. Proper elimination can usually be encouraged by the administration of rhubarb and soda or other laxative; the other conditions may be corrected by timely advice.

Locally, is first demanded to remove the offending body—the comedo—which can be done properly only by means of lance and extractor, a certain number being removed at each sitting; while this will induce more or less congestion, it is only temporary. Next is needed a germicide, not alone to destroy the offending microbe, but also to remove all local tendency to the recurrence of the trouble: this should be incorporated in a detergent, astringent, cosmetic lotion.

Some years ago was referred to me a blonde, full blooded, active girl with a most delicate complexion, about nineteen years of age, whose face and forehead were covered with a pustular acne in a marked degree. After vainly attempting to give her relief by numerous medications, I prescribed the following, which not only in this but in all subsequent cases proved most satisfactory:

℞ Freshly precipitated sulphur, 5 parts.
Freshly precipitated zinc sulphide, 3 parts.
Hyposulphite of potassium, 6 parts.
Sulphate of potassium, 6 parts.
Rose water, 80 parts.

In every instance I have found success depends upon the careful preparation of the lotion and thorough removal of the comedones. At first it is applied twice daily till there is a dryness of the skin; then once daily; then perhaps only once or twice a week.

In nearly all cases of acne there is an increased oiliness of the face, especially along the sides of the nose, due to the fact that the activity of the sweat glands, which secrete a certain amount of oil, goes on. This oiliness is removed by the astringency of the lotion.

It is not necessary to detail the individual cases treated, since as a class each and every one has been in great measure a repetition of that just cited, though the pustular condition was more marked in some than in others. Some were of years standing, as evidenced by the pock-marked appearance. All were due to, and influenced by, various constitutional causes, and where the treatment could be properly carried out, all yielded to the same treatment in from one to four months. The return to healthy action was especially apparent in cases of pronounced pustular character, which are the most revolting of all.

When once the sebaceous glands are stimulated to healthy action, their function will usually remain normal, provided proper care is observed to keep predisposing causes subdued.

Detroit, Michigan.

Clinical Reports.

CRETINISM TREATED BY DESICCATED THYROIDS.

BY J. S. WHITE, M.D.

Esther K—— came to me in September, 1894. She was seven years of age, twenty-seven and a half inches tall, weighed twenty-five pounds. Had never walked or talked; would sit for hours at a time and never move. Lips very large; mouth always open, tongue very thick and wide, too large for the mouth and protruded about one inch; upper incisor teeth all decayed; hair very long, dry, and so brittle as to break easily. On arms and legs fat lay in rings and folds; legs much bowed; very long ventral hernia extending about two inches above and below umbilicus. Manifestly there was general arrest of development (Fig. 1).

FIG. 1.

About September 15th, 1894, I began treatment with desiccated thyroids, giving three-fourths of a grain three times daily. I was surprised at the phenomenon manifested, for at the end of the first week she had apparently retrograded and could not sit up alone. The family now desired to cease treatment, but I insisted on continuing the thyroid, and they finally yielded.

Two weeks later the child was walking; the heavy cheeks, thick lips and over-large tongue were manifestly getting smaller. At the end of a month (October 15th), nose and lips were like those of a normal child, and her height had been increased to twenty-eight inches. At this time the skin was all peeling off, which it did completely, and the hair from head and eyebrows came out so that she was left completely hairless. I still continued the desiccated thyroid. On Decem-

FIG. 2.

FIG. 3.

ber 15th I measured her height, which was now twenty-nine and a half inches. January 26th, 1895, her height was thirty-two inches; March 2d, thirty-three inches; May 17th, thirty-four inches; July 16th, thirty-five and a half inches (Fig. 2).

One week of each month I give the thyroid treatment, and the child is doing well; is bright, plays, runs and talks as other children of her age. Figure 3 exhibits the child as she appeared early in 1896.

Montour, Iowa.

THREE CASES OF CHOLECYSTOTOMY.

BY A. W. FLY, M.D.

Case 1.—In the early part of February, 1896, Miss T—— was brought from an adjoining county complaining of constant nausea and vomiting when not profoundly narcotized or under the influence of an anæsthetic. She had paroxysms of acute pain over the gastric and hepatic regions, at which times she imagined she could feel gall-stones pass. This condition, in my opinion the result of an injury that occurred some months previous, had lasted some time.

February 9th an incision was made from sternum to umbilicus, and another at a right angle, three inches long, through the right rectus muscle; a needle armed with silk was passed through the point of angle thus formed to enable an assistant to keep the wound open. I then ran a needle armed with strong silk through the gall-bladder, when the latter was easily lifted to a position convenient for handling. It was four or five times larger than normal, and a vertical incision into it revealed masses of inspissated bile that could not pass into the bowel. After emptying, cleaning and freely washing out the gall-bladder it was closed by continuous catgut sutures; the edges of abdominal wound closed by silk.

The liver presented several bruised spots, the result of the external injury; also two ribs had been broken. Patient had several rises of temperature, preceded by chilly sensations, but their periodical recurrence seemed to point to malarial origin, and they were relieved by a few doses of quinine.

Patient made a good recovery, went home one month from day of operation, and is now perfectly well.

Case 2.—Doctor B—— consulted me about the middle of March, complaining of pain in

gastric and hepatic regions; had lost thirty pounds in three months. Had well-marked jaundice, and a well-defined indurated enlargement over the pylorus, suggesting cancer. I made the same incision as in the preceding case, and found gall-bladder occupied by two large gall-stones. A small section from the enlarged pylorus, under the microscope, also revealed a cancerous condition. Patient on twenty-second day after operation was feeling moderately well, but his general condition fully justified an unfavorable prognosis.

Case 3.—April 7th, was called to a neighboring town. Found patient vomiting incessantly, and with violent pain in stomach and liver; pulse not to be counted; was bathed in cold, clammy perspiration—in fact in a moribund condition, so of course did not operate. Every physician who saw the case concurred in the diagnosis of gall-stone with rupture, which was confirmed a little later by a post-mortem.

Galveston, Texas.

HYPERTROPHIC RHINITIS WITH MYXOMA.

BY C. B. GRAHAM, M.D.

R. W——, aged twenty-three, employed in the cotton mill, complained of suffering in nose and head. His breath was offensive; was constantly hawking and spitting. The exterior of the nose presented a slightly swollen patulous appearance on the left side, with a rash around the orifice and on the surface of the ala. The mucous membrane in anterior of right fossa was dry, and scabs and pus adhered to the walls,—my range of inspection was limited by an anterior hypertrophy of the middle turbinated bone. The conjunctiva of the right eye was congested, due probably to pressure of the hypertrophy against a branch of the ophthalmic nerve. Complained also of headache, and pain near the orifice of the ductus lachrymalis. The left fossa had only a slight hypertrophy with simple rhinitis. Throat dry, with some evidences of pharyngitis sicca. At night the patient was harassed by the continual feeling of something dripping down into his throat; the accumulated nasal secretions were hawked down through the naso-pharynx into the mouth and expectorated.

I introduced a pledget of cotton saturated with a four-per-cent. solution of cocaine into the inferior nares and allowed it to remain several minutes, then removed the hypertrophied body with the knife; next packed the chamber with absorbent cotton saturated with a solution of cocaine (one and one-half grains) and acetanilid (two grains) in distilled water (one drachm).

On removing the tampon, with the speculum I could plainly see a large mucous tumor, ashy gray in color, attached to the posterior wall. I now removed the small hypertrophy from the left nares; then, as there was considerable rhinitis, I merely syringed out both chambers with a warm alkaline solution, subsequently applying an astringent powder.

Next morning, on removing the pledgets of cotton from the nostrils, I concluded to treat the inflammatory condition for several days. I syringed the passages with a warm alkaline solution, and finding the scabs and inspissated secretions still hard to remove, used diiododithymol (ten grains to the ounce of liquid petrolatum) with the post-nasal syringe, placing the nozzle well up behind the velum palati, employing some force.—The bland oil softens the secretions and acts as a protective to the mucous membrane, while the diiododithymol is both healing and antiseptic. I also used cylinders made of absorbent cotton soaked in resinol ointment—warmed so as to adhere evenly to the outer surface of the cylinders.—This I find an elegant combination, and a very effective method of treating the inflamed Schneiderian membrane. The coal-tar products in the ointment at first induce an artificial anæmia, contracting the capillaries, which is of decided advantage as it anæsthetizes the mucous membrane and prevents irritation which would necessarily occur; the hollow cylinders also act as a support, and when removed the inflammatory secretions are syringed out with but little trouble. I also prescribed a ferruginous tonic—Aikin's tonic pill (P. D. & Co.)—alternately with salicylate of bismuth and minute doses of mercurial.

After treating the rhinitis for several days, I tamponed the right fossa with absorbent cotton saturated with a solution of cocaine and acetanilid, and as soon as local anæsthesia was established, the polypus was removed with a snare. The hæmorrhage was slight and easily controlled. Cylinders of absorbent cotton soaked with resinol were again applied.

This treatment was kept up for several days. The inflammatory foci healed nicely, and the pharyngitis sicca improved,—for the latter I exhibited a solution of resorcin, alcohol, and mint water. Also ordered a two-per-cent. solution of camphor-menthol in liquid petrolatum, to be used night and morning with an atomizer.

Patient is now in good health and has no symptoms of his old trouble.

Henderson, Kentucky.

THE MEDICAL AGE.

A SEMI-MONTHLY REVIEW OF MEDICINE.

—PUBLISHED BY—

GEO. S. DAVIS, Medical Publisher, Box 470.

All communications regarding papers, reports, etc., should be addressed to the Editor of the MEDICAL AGE, P. O. Box 470, Detroit, Mich.

Matters relating to advertising space, etc., to be addressed to the publisher, Geo. S. Davis, Box 470, Detroit, Mich.

The editor cannot engage to return rejected manuscripts or to correspond with the writers thereof, unless such are accompanied by sufficient postage.

DETROIT, MICH., MAY 10th, 1897.

Editorial.

NARCOTISM AND CRIMINALITY.

Of late a great deal has been said both in the medical and lay press regarding drugging for purposes of robbery, and also regarding a compound supposed to be employed and known among the criminal class as "Knock-out-drops." Recently, too, the statements regarding the foregoing that have accrued on this side of the water appear to have attracted the attention of our brethren "over the sea," and the *Medical Press and Circular* comments thereon as follows:

> New York has recently furnished the sensational novelist with a fresh phase of criminal life. Some time since one Petermann hit on the plan of drugging men whom he met in public bars under the influence of drink. After striking up an acquaintance he would pour secretly a few "knock-out" drops of a strong narcotic solution into the glass of his unsuspecting victim. Sooner or later the latter would become stupefied or unconscious, in which condition the "knocker out" would rifle his pockets and decamp. Next morning in the police court the statement of the plundered man that he could not account for his drunkenness would be received on all hands with sarcastic incredulity. We wonder if the "Petermann," as he has come to be called in the New York criminal world, exists on this side of the Atlantic? From a scientific point of view there is no reason, so far as we can see, why such a crime should not be perpetrated. At any rate it would be well for the police authorities of our own country to make themselves familiar with the alleged facts of the case, and for criminal detectives to bear the possibility in mind.

We may say for the benefit of our English contemporary that the Petermann idea as outlined and described is very far from being an "American invention," but on the contrary is an importation from the old world. This, or its prototype, will be found most explicitly described in many English and French works of fiction, and notably a most graphic account is given in Charles Dickens' "Our Mutual Friend." But the "drops" most employed abroad—formerly at least—are not the same as those claimed to be employed on the hither side of the Atlantic. When John Harmon, alias Julius Handford and John Rokesmith, was drugged, the intent of the author was, evidently, to convey some idea of the action of *Cocculus Indicus*, which abroad, for more than a century, has been employed as a criminal weapon, and when prepared in a certain way, and in certain doses, is very effective; though the victim may be able to keep his feet for some hours and act rationally, he loses all power of recalling acts and events occurring while under its influence; and when he finally recovers from the ultimate narcotism, he has no knowledge of lapse of time, of persons, or of happenings, except perhaps in a dreamy, indistinct way.

Despite the surmises of some eastern journals who have drawn upon their imagination for alleged facts, it is utterly impossible that "knock-out-drops" should be composed chiefly of chloral. This is inhibited by the amount which would be required to produce narcotism, which would necessarily demand both an enormous and dangerous dosage; and the very acridity of the drug precludes any such use. Laudanum, McMunn's elixir, morphine solution, etc., are commonly employed by cis-Atlantic criminals, inasmuch as they are more familiar with the action of these; McMunn's elixir doubtless has the preference because of its almost tasteless character and general miscibility with all kinds of beverages.

KOCH'S RESEARCHES ON TUBERCULIN.

For some weeks have appeared in various medical and lay journals elaborate accounts of what purports to be a new method of preparing and administering tuberculin. Considering the great fiasco that supervened upon the first announcements regarding this would-be medicament, and the disappointment, financial and otherwise, that accrued, Koch has for seven years worked faithfully in an

endeavor to put forth a more reliable tuberculin, and thus counteract the damage done to his reputation. In how far he has succeeded remains to be discovered. He has at least put forth a new tuberculin, and that it is entitled to some measure of credit is the opinion of Doctor G. Sims Wordhead, of Great Britain, whose utterances are certainly entitled to careful consideration. In *Nature* he expresses himself as follows:

Disregarding Koch's instructions that the cases of tuberculosis to be subjected to the tuberculin treatment should be carefully selected, and that the medicament should not be tried in any but comparatively early cases, physicians threw aside tuberculin as being not only of no use, but absolutely injurious, and taking into consideration the class of cases on which it was tried they were right. The febrile reaction may or may not have been injurious in the majority of cases, but in a certain proportion it was undoubtedly associated with exacerbations of the disease and a general deterioration in the condition of the patient. A few workers, however, have all along maintained that in properly selected cases the exhibition of tuberculin has undoubtedly proved beneficial, whilst as a diagnostic agent, especially in tuberculosis of cattle, it has opened up the possibility of gradually eliminating tuberculosis from our farms and dairies. Tuberculosis, however, has never been brought into line, as regards the production of immunity, with tetanus, anthrax, diphtheria, and certain similar diseases. But a step in advance in this direction has now been made by Koch, as is evidenced by the publication of his most recent work. He points out that in the case of tubercle, unlike many other diseases, an infection, in place of protecting, rather predisposes to new attacks of the disease. On the other hand, there appear to be certain conditions, such as those met with in acute miliary tuberculosis, under which the tubercle bacilli disappear; from this he argues that immunization only takes place when, as in general tuberculosis, the whole body is invaded by great masses of tubercle bacilli, which thus come in contact with comparatively healthy tissues. Having determined this, it becomes necessary to find out whether, the products of the bacillus failing to give immunity, the substance contained in the bodies of the bacilli are the immunizing agents. By means of a decinormal soda solution he partially broke down, or extracted, the tubercle bacilli: with the fluid thus obtained (*Alkaline*-tuberculin) he made a series of injections, and found that this substance acts very much as did his original Glycerin-tuberculin, producing both local and general reactions, but acting more powerfully; and he found that relapses were undoubtedly less frequent when this substance was used than when the original tuberculin was injected. If the remains of the bodies of the tubercle bacilli were left in this fluid, abscesses were formed when large quantities were injected, but such abscess formation was immediately prevented when the fluid was filtered. The tuberculin in this form, however, required to be used in a fresh condition, and therefore could not be applied on any very extensive scale. The bodies of tubercle bacilli he found are covered with a layer containing two sebacic (fatty) acids, one of which is soluble in dilute alcohol, and is easily saponified; the other, soluble only in boiling alcohol or ether, is not so readily saponified. These fatty acids form a layer which protects the bacillus, and prevents its being absorbed from the seat of injection, with the result that it remains and sets up a powerful local suppurative reaction. By pounding these organisms in a dry condition, then adding distilled water and centrifugalizing, then by drying the sediment and repounding until the whole of it is dissolved, Koch has been able to obtain the substances of the bodies of the bacilli in an absorbable condition. These substances, he says, appear to be divided into two sets: those contained in a whitish, opalescent, transparent supernatant fluid, which contains no bacilli, and a muddy deposit, which contains the solid bacilli. The upper layer contains most of the substance soluble in glycerin. This upper layer is very like the ordinary tuberculin, and acts like that substance, but more powerfully; whilst the lower layer, or the *tuberculin-remainder*, has an even more distinct immunizing effect. Used in very large doses it produces a general reaction (rise of temperature, loss of appetite, etc.); but used in smaller doses, gradually increasing as quickly as the patient's condition will allow, and avoiding a general reaction, it sets up an immunity against the tubercular-remainder substance; indeed, Koch shows that any case that can be rendered proof against the latter can also be rendered proof against the tubercle bacillus itself. Without going into the question of dosage, it may be insisted that this substance should never be given so as to produce a rise of temperature of more than half a degree. If the disease is advanced the substance appears to exert little or no effect, but as a protective agent and as a curative agent applied at an early stage of infection, a certain proportion of experimentally infected guinea-pigs could be beneficially influenced. So far, as with tuberculin, the best results have been achieved with cases of lupus (or skin tubercle), and here the improvement obtained has been far greater than that produced by the use of tuberculin, though Koch guards his position by saying that though many of the cases may be regarded as cured in the ordinary sense of the word, it is, he thinks, premature to use the word "cure" before a sufficient time has passed without a relapse. It is, however, important to note that in none of the numerous cases treated were the patients injuriously affected. There was a steady increase in weight, and the variations of temperature, so marked in the tubercular patient, were distinctly diminished, and the general condition of the patient improved.

The interest that attaches to these experiments does not end at this point, for it is evident, if an immunity against the action of the bacilli and their poisons can be obtained, that the treatment of tubercle may ere long be brought into line with the treatment of some of the other specific infective diseases, and that by an extension of Koch's and Maragliano's methods still further advances in the treatment of tubercle may be made. What will strike those who have followed the development of Koch's method of treatment from the time that he discovered the bacillus to the present moment, is the ingenuity, perspicacity, and tenacious adherence to one idea that has characterized the whole of Koch's reasoning and experiments. It is not too much to say that through his early work we have the hope that tuberculosis may gradually be eradicated from cattle, whilst as the result of his later experiments there appears to be some promise that for the human subject protection against the ravages of tuberculosis, and even cure, may be obtained.

All this is most interesting, and doubtless most gratifying also, to those who deem the so-called tubercular bacillus the *fons et origo* of tuberculosis. But for years there has been a steadily increasing conviction among medical men, who are not content to accept a mere *ipse dixit* as an established fact, that the claims made for this bacillus are not well substantiated. Scores of practitioners who are expert with microscope have discovered that many cases of tuberculosis, especially the pulmonary form, exist without the microbe, and also that the microbe may exist without tuberculosis. Even so noted a pathologist as Professor Henage Gibbes, who long upheld the bacillus as a cause of tuberculosis, two years since acknowledged careful study failed to prove any basis for such contention. All this has to be reckoned with; and the opinion therefore is forced upon the minds of thinking men that seven years devoted to study of the bacillus itself on the part of Koch, instead of to a destroying agent therefor, would perhaps be more beneficial to pathology. But if the new agent can be made a definite factor of diagnosis, even in cattle—which is now very uncertain—it must be admitted such will be a decided and material gain for science.

THE URATES IN A NEW ROLE.

Recently in a communication to the *Medical Press and Circular* Mr. J. Barker Smith suggested, first, that urates may be excreted by the hair; and second, that uric acid may play an important rôle in respiration and in the formation of red corpuscles from nuclear elements.

The discovery of urates in the hair is of more than medical significance, since it naturally brings into consideration wool, feathers, fur, etc., and their influence upon coloration, use, and adornment, to say nothing of the relations of odor to excretion and sex.

Should the discovery thus claimed be verified, the evidence that one form of necessity determines many common characteristics would have its influence in future methods of classification.

EDITORIAL NOTES.

Medicine in the Twentieth Century.—

Some of our contemporaries are raising a wail over the decadence of medical practice, and predicting no end of disaster therefor in the coming century.

It is hardly to be imagined that it will be all "beer and skittles."

***

The profession has only itself to blame for this. Young men without experience seek notoriety—and often are encouraged therein—by promoting and upbuilding of free hospitals, free dispensaries, cheap medical schools; also they assume the rôles of specialists before they have gained even a modicum of experience as a general practitioner.

***

What then can be the result but quackery and charlatanism? Anything like a Code of Ethics—which after all is merely a code of medical morals—is to-day unpopular with the masses of the profession and held to be only worthy of sneers. Any calling without a system of morals must lose the respect of every honest or thinking man. The average layman very properly prefers the open charlatan to the half-quack.

***

The medical profession in America has sold itself to foreign aniline works and the native proprietary and patent medicine interests. Those who most loudly deplore decadence do not hesitate to publish as truth

the boldest falsehoods regarding nostrums, of the composition of which they know nothing. Having been purchased "body, soul and breeches" by the proprietary medicine octopus, they in one column of the journals groan over the moral turpitude of the profession, and in the next boast of their own adherence thereto.

***

The average layman reads a prescription calling for some *anti-*, *-ine*, *-ol* or *-ide*, and when he next imagines himself in need of a remedy, goes direct to the druggist and even recommends his friend to do the same. Thus the medical man side-tracks himself.

***

Having sold himself as a catspaw, the physician and the medical editor still "lick the hand" that is so uninterruptedly and powerfully endeavoring to prosper on the weaknesses of the profession and the ills of the masses.

***

Can a profession thrive that accepts second-handed hypothetical pathology and physiology made to fit the nostrum by individuals utterly ignorant of these sciences?

***

What of the myriads of so styled professors who openly laud proprietaries and fill the medical press with imaginary cases intended to foster the sale of the same?

The number of medical men who eke out their incomes by writing essays and papers in behalf of nostrums is Legion—they teach in our colleges, post-graduate schools, and pose as specialists.

***

Behold the number of medical societies! Once they were a means of disseminating knowledge and for exchanging ideas. To-day they are the mart of the proprietary medicine interest, the exchange for self-advertising, and the auction rooms for nostrums.

***

What can we as a profession say for ourselves when on the one hand clergymen and the religious press are condemned for their quackish leanings and recommendations of that of which they know nothing either good or bad, while we, boasting superior knowledge, and knowing the same are unqualifiedly bad in principle, demoralizing to probity, a constant menace to the great body of humanity, do the same under the guise of scientific knowledge and attainment?

***

Pluck out the professional beam before finding fault with the clergyman's and layman's mote. Let medical men first of all be honest to themselves and to their patrons. Falsehood, chicanery, ignorance, dishonesty—these are the factors that promise the ruin of medical practice, of medical teachings, of medical convocations *et al.*, in the twentieth century.

***

What is to be expected of the future, judging by the quarter century just past? What editor or practitioner a quarter of a century agone would have dared act as an agent for proprietaries or urge an extension of the evil? And yet to-day there are scores of journals that advocate (because of individual financial interests) the abrogation of the Pharmacopœia, abandonment of all legitimate remedies, and a strict adherence to those that are either patented, trade-marked, or copyrighted, or in some other way protected.

***

What is the difference to-day between medical science and medical empiricism?

The American Medical Association.—

The semi-centennial meeting of this organization will be held in Philadelphia from the 1st to the 4th of June inclusive. The local committee have obtained large and roomy places for both the general and section meetings within a short distance of each other.

We observe the committee in sending out announcements lay stress upon the statement that Philadelphia "is now, as it has been for many years in the past, in every respect the medical centre in the United States," to which some of our *confrères* in New York, Boston, Chicago, and even Baltimore, are apt to take exception.

An Aged Practitioner.—

Doctor de Bossey, of Havre, France, recently died at the advanced age of 103 years. Up to the end of January of the present year he was in active practice.

Items and News.

A Notable Discovery.—

An announcement which will arouse a good deal of interest among biologists was made at a recent meeting of the New York Academy of Sciences. Mr. Bashford Dean reported that he had obtained a fairly complete series of embryos of *Bdellostomum*, including upwards of twenty stages from cleavage to hatching. *Bdellostoma*, as the name is usually written, is a form very closely allied to *Myxine*, the hag-fish, which is abundant off the northern coasts of Europe. Hitherto the development of the *Myxinoids*, with the exception of one stage of segmentation, has been entirely unknown, though many European zoologists have spent much time and labor in unsuccessful endeavors to obtain material for its investigation. The devolving eggs of *Bdellostoma*, which are quite similar to those of *Myxine*, were obtained by Mr. Dean in the course of collecting operations carried on at Puget Sound, California, by a party of zoologists from Columbia University, New York, in the summer of last year. A number of the eggs and larvæ of a form allied to Chimæra were also secured. The results of the study of this material will be of the greatest interest and importance. After the mystery of the reproduction of the eel had been explained by Grassi, there were only two well-marked types of vertebrates whose development still baffled investigation; and the difficulties in these two cases appear to have been at last overcome.—*Nature.*

Helminthiasis Extraordinary.—

The following medical item appeared in *The Boston Weekly News-Letter*, January, 1717:

On the Lords day Morning the sixth Currant, a strange thing fell out here, One Thomas Smith a Sawyer about four Month ago, bought a Lusty Tall new negro, fit for his Employ, who after complain'd of something within him that made a Noise Chip, Chip, Chip; his Master sent for a Doctor, one Sebastian Henry Swetzer a German, who told him he had Worms, whereupon he gave him Physick on Wednesday; from Thursday till the Lords Day he gave him some Powders, which on the Lords Day had that effect as to cause him to vomit up a long Worm, that Measur'd a hundred and twenty eight Foot, which the negro took to be his Guts; it was almost as big as ones little Finger, its head was like a Snakes, and would receive a Mans little Finger into its Mouth, it was of a whitish Colour all full of Joynts, its tail was long and hard, and with a Microscope it seem'd to be hairy; the Negro before voiding the Worm had an extraordinary Stomach.

—*Albany Medical Annals.*

Osteopathy.—

The science of osteopathy is a combine of the old bone-setter's art, spiritualistic faith cure, and Christian science, constituting a method for the practice of charlatanry upon the innocents who are credulous. With some neurasthenics and hysterical cases it is altogether probable that they have met with a degree of success in their methods of treatment. In some instances their massage work may do good by breaking up some old abnormal adhesions. That is all. Their methods of business are those of the charlatan, and quackish in the extreme. By their labors with the weak-minded they are likely to land some of them in hospitals for the insane. Their science is the science of imposition upon credulity and nothing more.—*Cincinnati Lancet-Clinic.*

Weather and Crime.—

R. Q. Grant says that violent barometer changes and crime are coincident. When the barometer is up the world is cheerful, maladies allow the sufferer to enjoy convalescence, and even pickpockets and murderers think seriously of earning an honest living. When the barometer is depressed melancholia prevails, people who are ill are more likely to die, men contemplate suicide in order to find relief, and the murderer loads his gun. Fair weather, crime less; low barometer, a crop of evils. Well, there may be something in it, for now I think of it a cold easterly storm always brings on my rheumatism, and I do feel like setting the house on fire or blowing some one up with dynamite. Is it all the fault of the barometer—or isn't it?—*New York Herald.*

The Whale Cure for Rheumatism.—

It is reported that at the town of Eden, a place in Australia which stands on the shores of Twofold Bay, there is a hotel where rheumatic patients congregate. Whenever a whale has been taken the patients are rowed over to the works in which the animal is cut up, the whalers dig a narrow grave in the body, and in this the patient lies for two hours as in a Turkish bath, the decomposing blubber of the whale closing around his body and acting as a huge poultice. This is known as the "whale cure for rheumatism."—*Dublin Journal of Medical Science.*

A Fly in the Beer.—

If a fly drops into a beer glass, one who has made a study of characteristics can easily tell the drinker's nationality by his action.

A Spaniard pays for the beer, leaves it on

the table, and goes away without saying a word.

A Frenchman will do the same, except that he swears while he goes.

An Englishman spills the beer, and orders another glass.

A German carefully fishes out the fly, and drinks the beer as if nothing had happened.

A Russian drinks the beer with the fly.

A Chinaman fishes out the fly, swallows it, and then throws the beer away.—*Fliegende Blatter.*

Perpetual Motion.—

A new industry will be started at Freeport, Illinois, says an exchange, on a quarter section of land. An enterprising farmer will establish a thousand black cats, and five thousand rats on which to feed the cats, estimating that the cats will increase fifteen thousand in two years, their skins being worth a dollar each. The rats will multiply five times as fast as the cats and will be used to feed the cats, while the skinned cats will furnish food for the rats. Thus has perpetual motion been discovered at last.—*Lippincott's Magazine.*

Certainly.—

A medical student of Hebraic extraction, undergoing an examination in pathological anatomy, was asked to name the organs of the body in which cysts most commonly occur. He omitted the ovary, whereupon the examiner requested him to recall an organ which he did not possess.

The candidate immediately replied: "Oh, yes—*the prepuce!*"

A Good Disinfectant.—

When cholera was so greatly feared in 1867 Doctor Piggott, a well known chemist of the time in Baltimore, announced the only disinfectant of any use was sulphate of iron in composition with charcoal. He subsequently announced soot to be superior to charcoal because it contained "unoxidized hydrocarbons, including creosote." — *Baltimore American.*

A Wise Precaution.—

"Apropos of the medicine chest," remarked a physician a day or two ago, "it is a wise law to guard against poisoning which Germany has passed. All drugs intended for internal use must, in that country, be put up in round bottles, and those which are only used externally must be placed in hexagonal bottles."—*New York Times.*

Book Reviews.

INTERNATIONAL CLINICS. Edited by J. Daland, M.D., J. Mitchell Bruce, M.D., F.R.C.P., and David Findlay, M.D., F.R.C.P. Seventh Series, Volume 1. Cloth; 8vo; pp. 361. The J. B. Lippincott Co., Philadelphia.

This is the first of the series for 1897 and represents the best lectures that have been delivered in the United States and abroad upon special topics by the most able teachers. There are no less than fifteen papers under the caption of Treatment, five under that of Medicine, six under Neurology, ten under Surgery, four under Gynæcology and Obstetrics, one under Ophthalmology, three under Laryngology, Rhinology and Otology, and two under Dermatology.

Among the most notable papers are "The Treatment of Acute and Chronic Catarrhal Inflammation of the Middle Ear," "Literary Methods in Medicine," "Chronic Retro displacements of the Uterus and Tuberculosis of the Larynx," "Tubercular Meningitis in the Adult," "Chorea in its Various Types," "Tubercular Bone Diseases," "Sterility in the Female," "Diagnosis of Iritis."

DISEASES OF THE STOMACH. By Doctor C. A. Ewald. Translated by Morris Manges, A.M., M.D. Cloth; 8vo; pp. 602. Price, $5.00. D. Appleton & Co., New York.

The great progress which has been made in knowledge of diseases of the stomach since this work was first issued in 1892 has rendered a new edition necessary, which is based upon the last (third) German edition. We observe much new matter has been incorporated, not alone by the author but also by the editor, the work of the latter appearing in brackets or in foot-notes. Many new illustrations have been added also, no less than thirteen figures appearing which were not in previous editions. A notable feature is the amount of space given to the subject of gastric surgery, which heretofore has not been gathered under one volume, but when sought could only be had by means of many volumes of periodical literature.

As a whole we welcome this volume, which is the most valuable of its character that has ever yet been published; and it is not only very complete but fully up to date.

DISEASES OF THE EAR, THROAT AND ACCESSORY CAVITIES. By Seth L. Bishop, M.D., LL.D. Cloth; 8vo; pp. 496. Price, $4.00. The F. A. Davis Co., Philadelphia.

This is a condensed text-book designed partly to help students in preparing for the degree and partly for those practitioners who wish to quickly master the knowledge essential to treat patients that are unable to visit specialists; and finally for those who are gradually changing general practice for special work along the lines of this volume.

Further, the subjects are so simplified and condensed as to constitute this book a key or introduction to more exhaustive treatises.

We observe that little attention is paid to the anatomy of the various organs, which certainly is desirable. No one should take up a book of this character unless first well grounded in the anatomical rudiments, and the fashion of entering into anatomical details in text-books is much to be reprobated. The reputation of the author is sufficient to commend the work.

A Modern Corsair. By Richard Henry Savage. Paper; 12mo; pp. 382. Price, 50 cents. Rand, McNally & Co., Chicago and New York.

This is a remarkable book in many respects. It deals with attempts at swindling the Lloyds by means of false lading, barratry, etc.; and incidentally is woven a most remarkable plot. The hero is an American with English tastes, who goes to the Levant to act the spy for the Lloyds, and unearth a gigantic swindle carried on by a Greek firm. The plot gives glimpses of life in the Orient, of Oriental diplomacy and scoundrelism, and ranges across the whole of Europe into Asia, down the Atlantic to Gibraltar, and from Gibraltar to Smyrna, and finally from Smyrna to Tangarod in Russia. No review can do the book justice; it must be read to be appreciated. There is not a dull line from first to last, and when finished the reader lays it down with a feeling of regret that the end has come so quickly. The fidelity with which all pen pictures are drawn is a marvel in this day of slipshod literature.

The International Medical Annual for 1897. Cloth; 12mo; pp. 851. Price, $2.75. E. B. Treat, New York.

Again this valuable annual makes its appearance and more than upholds its previous reputation; and although the past year has not been notable for the introduction of many new remedies, there is embodied in this volume an epitome of the vast amount of labor that has been done in threshing out the details of practical treatment, both medical and surgical. Also appears most valuable information on "Leprosy in Norway" from the pen of G. Arnauer Hansen (Inspector-General of Leprosy), and on "Oriental Diseases" from Mr. Centlie. The articles on medicine and surgery are the conjoined work of European and American scientists, consequently the Annual for this year is completely cosmopolitan in character.

Memory Training. By William L. Evans, M.A. Cloth; 16mo; pp. 275. Price, $1.00. A. S. Barnes & Co., New York.

This is a complete and practical system for developing and confirming the memory, and adapted to all kinds of subjects.

Every process has its laws, and it is better that these laws should be known. Those of memory have been deplorably neglected, and consequently we are pleased to see the little volume in its effort to raise the subject to prominence, at the same time showing its importance and introducing a method whereby each one can be put in the right path to improvement of memory or prevention of its deterioration.

In the first part of the book the subject is treated from a pscychological standpoint, in the latter part from a physiological view; the two, however, are considered merely as two sides of a "double-faced unity."

Syringomyelia. By Guy Hinsdale, A.M., M.D. Cloth; 8vo; pp. 74. Price, $1.00. P. Blakiston, Son & Co., Philadelphia.

This is a very complete monograph, one that will be welcomed by every physician whether neurologist or general practitioner. It is the essay to which was awarded the Alvarenga Prize of the College of Physicians in Philadelphia in the year 1895. It is well illustrated, and there is moreover an exceedingly voluminous and complete bibliography, there being no less than 514 references.

The Mill of Silence. By B. E. J. Capes. Cloth; 12mo; pp. 348. Price, $1.00. Rand, McNally & Co., Chicago and New York.

This is another of the *Chicago Record's* Series of "Stories of Mystery," and out of 816 competing gained the second prize. It is weird to say the least, and must be read to be appreciated. It is not without interest, and will well repay perusal, nevertheless in many respects is sadly overdrawn, and shows a lack of familiarity with the surroundings described.

The Canadian Magazine. Price, 25 cents; $2.50 per year. Ontario Publishing Co., Limited, Toronto.

With the current month this periodical enters upon its ninth volume. J. W. Longley writes of the "Premiers of Nova Scotia Since 1867;" J. C. Webster of "A Visit to the Birthplace of James Wolfe;" David Christie Murray of "Thomas Hardy and George Moore;" P. T. McGrath of "Newfoundland's School System;" Victor Coffin of "The Province of Quebec and the Early American Revolution;" W. T. James of "Bread and Butter." We regret to see that the Magazine is steadily deteriorating from the standard which in its earliest volumes rendered it a credit alike to publishers and the Provinces of which it professes to be representative. Not alone is the current issue replete with typographical and rhetorical errors indicative of careless proof-reading, but the fiction is of the most crude and wishy-washy character: two bits of dialectal verse are positively vile, and certainly could have found place nowhere else. The announcement is made that beginning with this number the Magazine is printed upon better paper, but this disappears with the thirty-fourth page, its place being occupied by one of entirely different and most inferior quality and hue. Such gross care-

lessness is inexcusable in a periodical that claims to be the representative of a great Colony and an educated people. J. A. A.

McClure's Magazine. Price, 10 cents; $1.00 per year. The S. S. McClure Co., New York.

The May issue contains the story of the pursuit, capture and death of J. Wilkes Booth, written by a relative of Colonel and Lieutenant Baker, the detectives who organized and led the pursuit, effected the capture, and disposed of Booth's body. Kipling's realistic story of the Grand Banks, "Captains Courageous," is completed, and in the same issue is the first installment of Robert Louis Stevenson's charming romance, "St. Ives." Carl Schurz reviews the second administration of Grover Cleveland —a most interesting paper. An account of General Grant's rebuffs and disappointments in his first efforts to get employment on the outbreak of the civil war is told from new documents and material by Hamlin Garland; a series of life portraits of Daniel Webster appear with introduction and notes by Charles H. Hart. Doctor Conan Doyle, Cy Warman and others contribute short stories.

Lippincott's Magazine. Price, 25 cents; $3.00 per year. The J. B. Lippincott Co., Philadelphia.

The complete story in the May issue is by Virna Woods and entitled "Jason Hildreth's Identity." It deals with a man who has lost his identity, supposes later that he has discovered it and instead is dealing with the individuality of personages evolved from his own mind in the preparation of a novel, and only after eight years becomes himself again. "Some Bird Songs" is by Henry Oldys; "On the Santa Fé Trail," by William Thomson; "French Pioneers in America," by Alva Fitzpatrick; "Earning a Living in China," by Dora E. W. Spratt; "Marthy's Dress," by Carrie B. Morgan; "Early Man in America," by Henry B. Bashore; "Life in the Cotton Belt," by Frances A. Doughty; "A 'Star Route' Case," by Mary E. Stickney; "Beginnings of Liberty in New York," by Mrs. S. Van Rensselaer; "My Pennsylvanian," by N. A. Altsheler.

The Osprey. Price, 10 cents; $1.00 per year. The Osprey Co., Galesburg, Illinois.

The issue for April among other interesting topics presents: "A Roost of Blackbirds," by Richard C. M'Gregor; "Fly Catcher Notes," by P. B. Peabody; "Cobbs Island, Virginia," by W. H. Fisher; "Home of the Loggerhead Shrike," by F. M. Woodruff; "An Improved Egg-blower," by H. R. Buck; "A Nest of Red-eyed Vireo." There are the usual departments, notes, etc. The illustrations are fine, two notable ones being the Nest of the Red-eyed Vireo, which seems to be made up largely of The Outlook newspaper, and The Home of the Loggerhead Shrike. The illustration accompanying the article on "Improved Egg-blower" is very complete, and gives every oologist a scientific implement at a mere nominal price which will do away with the annoyance that hitherto has always been associated with attempts to "blow" eggs.

The Century. Price, 35 cents; $4.00 per year. The Century Co., New York.

Contents for May: "A Suburban Country Place," by Mrs. S. Van Rensselaer; "Hugh Wynne, Free Quaker" (VII), by S. W. Mitchell; "Bicycling Through the Dolomites," by George E. Waring, Jr.; "Anti-Babel, or Professor Sandfog's Universal Language," by W. H. Bishop; "Birds and Bards," by Henry Austin; "Scientific Kite-flying," etc., by J. B. Millet, H. D. Wise, and W. A. Eddy; "Tennessee and its Centennial," by M. W. Handly; "Campaigning with Grant," by Horace Porter; "A Benedictine Garden," by Alice Brown; "The Days of Jeanne D'Arc" (II), by Mary H. Catherwood; "Withdrawal of the French from Mexico," by John M. Schofield; "The Fall of the Second Empire as Related to French Intervention in Mexico," by Matias Romero; "The Royal Family of Greece," by B. I. Wheeler; "Crete, the Island of Discord," by D. Kalopothakes; "Ubi Sunt Qui Ante Nos," by E. C. Stedman. There are the usual departments.

Godey's Magazine. Price, 10 cents; $1.00 per year. The Godey Company, New York.

In the May issue Caroline Halsted writes of "Washington Favorites;" "Power Boats" is by Fred Werden; "A Eulogy of Vaudeville," by Beaumont Fletcher; "American Lace-makers," by Julia D. Cowles; "A Florentine Rose," by Anna W. Young; "An Amateur Book-maker," by Grace M. Cooke; "The Resurrection of Willie Todd," by A. T. Garrett; "On the Altar," by Sophie Valentine; "An Eye for an Eye," by C. S. Reid; "Happier Homes Through Better Decorations," by Grace E. Drew; "Woman's Work in Christian Missions," by S. T. Willis; "Mushroom-Hunting as a Pastime," by Lillie C. Flint; "Some Aspersions on Church Music," by Rupert Hughes; "The Theft of a Brain," by Lizzie Magie. There are the usual departments.

The Midland Monthly. Price, 15 cents; $1.50 per year. Johnson Brigham, Des Moines and Chicago.

The contents for May are: "The Dalles of St. Croix," by F. H. Nutter; "The Building of a Violin," by Charles A. Gray; "A Season's Plays and Players," by L. G. Giltner; "Lincoln Entering Richmond," by Leigh Leslie; "Across Country in a Van" (IV), by Mary A. Scott; "Inland Pirates," by Frank W. Calkins; "A Most Remarkable Case," by St. Clare St. Claire; "Lieutenant Burton's Wooing (I), by Henry Romeyn; "The Book Collector," by Mabel B. Fuller; "The Humor of Whittier," by J. L. Pickard; "Grant's Life in the West and His Mississippi Valley Campaigns," by John W. Emerson, is continued. There are the usual departments.

Outing. Price, 25 cents; $3.00 per year. The Outing Co., New York.

The May issue opens with an article on "Driving Four-in-Hand," by A. H. Godfrey; "A Woman's Trout Fishing in Yellowstone Park" is by Mary T. Townsend; "The Waterways of Holland," by Charles Turner; "Golf in America," by Price Collier; "A Corinthian Cruise," by Ralph Bergengren; "The Development of the American Foxhound," by Allen Chamberlain; "Across the Alleghenies by Wheel," by J. B. Carrington; "Australian Fur and Feather," by J. F. Hobbs; "Likuku," by May D. Hatch, is completed; "The Pilot's Daughter," by Elmore Elliott; "Athletic Training," by Randolph Faries. There are the usual notes, departments, etc.

ARCHITECTURE AND BUILDING Price, 10 cents; $4.00 per year. William T. Comstock, New York.

Contents for the issue of April 24th: "The Mississippi Flood;" "The Tennessee Exposition;" "Editorial Notes and Comments;" "The Planning and Construction of High Office Buildings" (V); "In Streets and Papers;" "Industrial Education;" "The Key to Constantinople;" "Societies;" "Correspondence;" "Personal;" "Industrial Progress."

Contents for May 1st: "The Tennessee Centennial;" "The Beginnings of Gothic Architecture" (II); "Lectures on the Cathedrals of France;" "A Great Engineering Work;" "A Silver Palace;" "In Streets and Papers." There are the usual departments.

THE ATLANTIC MONTHLY. Price, 35 cents; $4.00 per year. Houghton, Mifflin & Co., Boston.

The May issue contains: "A Remote Village," by Philip Morgan; "A Farming Town," by A. F. Sanborn; "Real Utopias in the Arid West," by W. E. Smythe; "Nansen's Heroic Journey," by N. S. Shaler; "Art in the Public Schools," by Sarah W. Whitman; "The Ramparts of Port Royal," by C. G. D. Roberts; "My Sixty Days in Greece," by B. L. Gildersleeve; "The Deathless Diary," by Agnes Repplier; "The Juggler" (X), by Charles Egbert Craddock; "Cheerful Yesterdays" (VII), by T. W. Higginson; "Notes of a Trip to Izumo," by Lafcadio Hearn; "The Story of an Untold Love," by P. L. Ford. There are the usual departments.

THE COSMOPOLITAN. Price, 10 cents; $1.00 per year. The Cosmopolitan Co., Irvington, New York.

One of the most notable papers in this magazine for May is the second paper on modern education, the subject "Does it Educate in the Broadest and Most Liberal Sense of the Term?" by President Gilman, of Johns Hopkins University. In the series on great business operations the collection of news by the Associated Press is discussed by T. B. Connery. "The New Congressional Library" is the theme of an illustrated paper by Nannie B. Maury. In addition to the serials by H. G. Wells and Molly E. Seawell there is a new novel by I. Zangwill. "The Turkish Messiah" is begun and promises well.

ST. NICHOLAS. Price, 25 cents; $3.00 per year. The Century Co., New York.

In the May number there are stories and pictures and verses for all sizes of children that are almost as delightful to the grown-ups as to the small people. A feature of general interest is "General Grant's White Mountain Ride," the story of a breakneck drive from Bethlehem to the Profile House in the White Mountains, a distance of eleven miles, which Edward Cox made in fifty-eight minutes with his eight thoroughbreds, with President Grant on the box. "Miss Nina Barlow" has reached London, where she has some startling adventures, and the other stories increase in interest.

AMERICAN KITCHEN MAGAZINE. Price, 10 cents; $1.00 per year. The Home Science Publishing Company, Boston.

The May issue contains: "Home Life in South Africa," by Mary F. Farnham; "The Teaching of Cookery in the Public Schools," by Katherine R. Fisher; "Sanitary Precautions," by Mrs. E. H. Chase; "A Mayflower Luncheon," by Henrietta L. Rowe; "The Chemistry of Cooking and Cleaning," by Ellen H. Richards and S. M. Elliott; "Experiments with Albumen," by Angeline M. Weaver; "An International Exhibition of Sewing," by Alice A. Cutting. There are the usual departments.

POPULAR SCIENCE MONTHLY. Price, 50 cents; $5.00 per year D. Appleton & Co., New York.

The notable papers in the current issue are: "Corean Interviews," by Edward S. Morse; "Racial Geography of Europe" (IV), by W. Z. Ripley; "Reversions in Modern Industrial Life," by F. Smith; "Principles of Taxation" (VII), by David A. Wells; "Highway Construction in Massachusetts," by Charles L. Whittle; "Davenport Academy of Sciences," by Frederick Hare; "Source of the New Psychology," by E. W. Scripture; "The Latent Vitality of Seeds," by M. C. de Candolle; "Strange Personifications," by Th. Flournoy.

THE PHRENOLOGICAL JOURNAL. Price, 10 cents; $1.00 per year. Fowler & Wells Company, New York.

In the May issue "A Phrenological Detective," by Nelson Sizer, is continued; "Phrenotypes and Side Views" is by H. S. Drayton; "General Grant's Memorial," by Nelson Sizer; "English Men and Women of Note" is discussed by Jessie A. Fowler, D. G. Elliott, and J. W. Taylor; "Burns and Scott Compared," by L. F. Piercy; "The American Home Culture Society," by J. A. Tropè. There are the usual departments.

VICK'S ILLUSTRATED MONTHLY MAGAZINE. Price, 5 cents; 50 cents per year. Vick Publishing Co., Rochester, N. Y.

The chief contents of the April number are: "The Styrax;" "Where to Cut in Pruning;" "The Wistaria as a Standard;" "Spring and Summer in My Garden;" "Dwarf Multiflora Roses;" "Begonia Gloire de Lorraine Verbenas;" "Injurious Insects and National Legislation;" "Spraying Orchards, Endive, and Floral Decoration of Bicycles;" "Garden Notes." There are the usual poetry and departments.

SCRIBNER'S MAGAZINE. Price, 25 cents; $3.00 per year. Charles Scribner's Sons, New York.

In the May issue Edward S. Martin writes of "Undergraduate Life at Harvard;" "Harvard College in the Seventies" is by Robert Grant; "Golf," by H. J. Whigham; "The Working of a Bank," by Charles D. Lanier; "Soldiers of Fortune" (XII–XIII), by Richard Harding Davis; "London," by C. D. Gibson; "Betwixt Cup and Lip," by Grace H. Peirce; "The Story of a Play" (VIII–X), by W. D. Howells. There are the usual poetry and departments.

REVIEW OF REVIEWS. Price, 25 cents; $2.50 per year. Review of Reviews Co., New York.

The principal papers are: "The Real Condition of Cuba To-day," by Stephen Bonsal; "The Chancellor of the French Republic," by Pierre De Coubertin; "The New Chief of the 'Constitution,'" by Joel C. Harris; "The United States and the Fur Seals," by David S. Jordan. Other notable papers are the "Editor's Comments on Greece and Turkey at War," "Greater New York Charter," "Diplomatic Appointments." There are the usual departments.

Therapeutic Brevities.

New Method of Treating Certain Deviations of Eyeball.—The operation which is almost universally adopted for the correction of deviations of the eyeball, especially when the deviation is outwards, is complicated, tedious, and somewhat uncertain in result; it is thus described in Berry's excellent treatise on "Diseases of the Eye:"

A vertical incision is made in the conjunctiva over the muscle to be advanced, and of a length equal to the full breadth of the muscle. A thread is then passed round the muscle close to its insertion by catching it up with a strabismus hook having an eye at the end, through which the thread is threaded. After this thread has been firmly knotted round the tendon, the ends are left long, and the insertion of the muscle divided close to the sclera; keeping hold of the thread in one hand, the operator proceeds to free the muscle from its attachments all round, above and below, and to either side for some distance back. He then introduces a double thread through the muscle from its under surface. The thread used for this purpose should be of pretty stout waxed silk, with a needle at the middle and one at either end. The middle needle is passed through the muscle. Having seen that this has been properly done, and that the freed and retracted muscle can be readily drawn forwards by the double thread, the first thread round the tendon, by which it was held, is cut away, together with a portion of the end of the muscle. One of the needles at the end of the double thread is then passed underneath the conjunctiva, and brought out at a point close to the vertical meridian through the cornea, while the other is passed in the same way beneath the conjunctiva below, and brought out at a point opposite the first. The middle needle may then be cut off, leaving two threads instead of one. The ends of the two threads are then tightly knotted, and thus a traction on the muscle exerted which draws it forwards, the one thread drawing it upwards and forwards, and the other downwards and forwards, so that the resultant, if they are properly applied, is to advance the muscle in the meridian of its action. Finally, a stitch is put in to keep the edges of the conjunctival wound in contact.

This is Graeffes's modification of Critchett's operation, and has been still further slightly modified by Schweigger and Prince. The modifications have, however, not succeeded in rendering the operation less tedious or more simple. I have therefore endeavored to improve upon the method by operating in the following fashion:

I hook up the tendon of the internal rectus muscle and divide all its connections with the eyeball; then pull it well forward, and by two horizontal incisions made with scissors convert into a narrowish strip; next transfix the base of this strip as far back in the orbit as possible with a large curved needle connected with a thread armed at both ends. Before drawing the thread through I cut off as much of the tendon as may be considered necessary, and then, having drawn it through, with the remaining needle pierce a small portion of the sclerotic about the site of the insertion of the inferior rectus tendon, and having thus secured control of the eyeball turn it inwards to any required extent by simply tying the thread. This operation, which I have practiced for years, is as successful in result as any operation of the kind can be; it is scarcely more formidable than the operation for internal squint, may be undertaken without any anæsthetic, and admits of rapid execution; the only portion of the procedure which presents any difficulty is the piercing of the sclerotic, as the ordinary needle is apt to cut its way out, to slip with the blood and grease, and is as a rule not sharp enough for the purpose. I have, therefore, had needles made of the same calibre throughout, and as sharp as possible, and have avoided the other complications by making the insertion of the thread the first step of the operation, as illustrated by the accompanying cut. This

done, and control of the eyeball secured, the rest of the operation becomes as simple as simple can be, and it is quite as easy to operate for external squint as internal squint, to obtain ample control of bad cases of internal squint, and to neutralize at once and with ease any overcorrection, the result of too much zeal in operating for either internal, external, or any form of squint.—Charles Bell Taylor, in *Medical Press and Circular.*

Ether and Chloroform.—Chloroform is preferable in:

Chronic endarteritis occurring in those advanced in years:

Chronic inflammatory affections of the respiratory tract and advanced pulmonary disease.—Of course, acute catarrhal affections of the respiratory tract are equally forbidding to the use of ether, but a patient suffering

from such an acute inflammation should, unless delay is hazardous, be relieved of his catarrhal condition before being subjected to any operation requiring a general anæsthetic:

Renal disease, acute or chronic:

When there is a history of ether having been taken badly at some former operation:

Chronic alcoholism:

Those cases in which the galvanic cautery is to be used in the neighborhood of the mouth or ear passages:

Cerebral tumors or abscess:

In old age:

In puerperal eclampsia, where an immediate effect is required:

Night operations with artificial light:

During labor:

In military and naval practice, on the field of battle, its use seems to be at times justified, although strongly contraindicated.

The following are peculiarly unsuited, if not prohibitive of chloroform:

Surgical shock:

Epilepsy:

Spina bifida and hydrocephalus (Morton):

When there is a tendency to syncope:

Fatty heart and chronic valvular disease:

Acute alcoholism—delirium tremens (Sansom):

Fatty liver:

It is unsafe to give chloroform to a patient already under the influence of chloral, whether in obstetrical practice or otherwise.—*Medical and Surgical Reporter.*

***

The accumulated testimony of fifty years tends to prove conclusively that ether kills slowly, chloroform quickly; that ether kills by asphyxia, chloroform by cardiac paralysis; that ether gives plenty of warning, chloroform often none whatever; that ether is safer in healthy and strong people than in the weak and prostrated, but that chloroform is nearly as fatal in the vigorous as in the debilitated. Ether does not demand any special skill in its administration; chloroform does. Proper treatment easily and effectually overcomes the unfavorable symptoms from ether; treatment often does no good whatever in accidents from chloroform. In short, ether is the safest general anæsthetic known; chloroform is not.—*Boston Medical and Surgical Journal.*

Poisoning by Arsenic in Vagina.—A maid-servant from Styria, aged twenty-five, was seized with vomiting and faintness on September 20th; left her situation on September 22d; picked up prostrate a day later and sent to hospital. Was almost pulseless, the abdomen was very tender; pretended she was menstruating, and no pelvic examination was made; there was scarcely any pulse. She died September 25th. At the necropsy acute fatty degeneration and hæmorrhages in solid viscera were detected, and phosphorous poisoning suspected; but a closer examination also revealed icterus, hæmorrhages under skin and in muscles, spleen greatly enlarged, and recent fibrinous pelvic peritonitis. In the vagina was found a paper bag containing still a quantity of white arsenic in fine crystals. Acute inflammation of the vagina with false membrane on the labia minora and incipient sloughing of the rectal mucosa over the recto-vaginal septum were detected; the labia majora were very edematous. The case was probably suicidal, as the deceased had told the hospital authorities she was menstruating so as to throw them off guard, though the pain must have been intense.

In the last century a peasant murdered three of his wives by introducing arsenic into the vagina after connection. Another wife murder was effected in the same way in 1799. In 1864 a single woman, finding herself pregnant, attempted to produce abortion by this means, but only succeeded in killing herself. In 1890 a prostitute was murdered by a man who by force introduced a quantity of arsenic into the vagina, wrapped up in a knot of horsehair.—*Centralblatt für Gynäkologie.*

Anal Fissure.—The following method of Cheron is said to give good results:

After the anus is partly opened and the fissure discovered, a small tampon of absorbent cotton saturated with a one-per-cent. solution of cocaine muriate is applied. At the end of five minutes local anæsthesia is obtained, and the fissure may be touched with pure ichthyol. These applications are repeated on the following days. At the fourth or fifth application the tampon of cocaine is introduced as far as the internal sphincter, and at the end of five minutes it is possible to make a slight dilatation of the anus with Nelaton's dilator. In this way the fissure is distinctly exposed to view, and can be thoroughly touched with ichthyol.

In proportion as cicatrization advances dilatation is more easily effected, and may be pushed still further in such a way as to cause the disappearance of stricture of the sphincter, which so frequently complicates fissures of long standing.

Recent fissures may be cured by ten applications of this treatment, but old fissures,

the borders of which are more or less callous, require a longer time for recovery; it is rarely necessary, however, to make more than twenty applications.—*Revue des Maladies des Femmes.*

Calomel in Heart Disease.—The most successful results may be obtained with calomel in heart troubles that are accompanied by distress in breathing, severe disturbances in the circulation, ascites, œdema, albuminuria, and hypertrophied heart and liver. I give in six powders with sugar three-fourths of a grain every two hours during the day, for two or three days, following this with three-fourths to a grain and a half a day for a few days, after which potassium iodide is given. Enormous ascites and œdemas vanish with this treatment, and even patients in complete cyanosis are restored to comparative health. The calomel relieves congestion of liver, and thus restores hepatic and portal circulation. The gums are frequently affected by the drug, so a chlorate of potash and tannin mouth wash should be ordered from the first. I limit the patient to a mild diet during treatment, warn to refrain from alcohol and excessive exercise, and insist on continuing the use of potassium iodide. Calomel has also the advantage that after it other remedies produce their best effect. The drug cannot form sublimate in the alimentary canal, since a very elevated temperature is required for this.—MALDARESCO, in *Therapeutische Wochenschrift.*

Infantile Pneumonia.—In children, the great danger from pneumonia is not hyperpyrexia, but heart failure; next in importance are nervous disturbances and active or passive congestion of the lungs. The condition of the right heart being all important, the pulse must be studied no less than the temperature.

The best treatment is tepid hip-baths with powerful douches and rubbing not lasting more than five minutes—in special cases combined with local application of ice. The best temperature for baths is 64° to 72° F., which often reduces that of the patient five to six degrees, and the vigorous friction helps to make the fall persistent, while at the same time it obviates the tendency to collapse. The circulation and respiration are markedly benefited, the action of the heart and lungs being slowed and deepened. The pulse frequently falls thirty or forty beats per minute. The effect upon the nervous system is even more emphatic.—BUXBAUM, in *Blätter für Klinische Hydrotherapie.*

Acute Rheumatism.—The mistake usually made in the administration of alkalies is in ordering too definite an amount. I have seen a great many cases of articular rheumatism treated according to a regular formula,—a mixture of citrate and acetate of potassium, of which a certain number of grains were given at certain intervals. This is not the best way of giving alkalies. It is much better to lay in a good supply of bicarbonate of sodium, and give this persistently in drachm doses as often as practicable, until the urine becomes alkaline. Other alkalies can be given in combination if desired; but the main point to remember is the importance of influencing the reaction of the urine. Bicarbonate of sodium is so familiar a substance that it is easy to get the patient to take a sufficient amount.—BISHOP.

Constipation.—Abstain from administering cathartics in slight transient disturbances of digestion—let Nature take her own course. Never put a patient on a one-sided diet for too long a time; the exclusion of vegetables, fruits, and starchy foods in general from the diet is frequently the cause of marked constipation. A hygienic mode of living, regular habits, less business strain and worry, and more outdoor life and exercise, are of great importance. The patient should be impressed with the importance of not worrying and bothering about his bowels; train him to have an evacuation once a day at a certain time, either giving no drugs whatever, or administering a very slight cathartic for a short period, then gradually diminishing and ultimately discontinuing its use.—*The Post-Graduate.*

Spermatorrhœa.—This symptom, insignificant in itself, but which occupies an important place in the thoughts of those neurasthenics in whom it is present, is to be attributed to an exaggerated irritability which is often hereditary. It is best treated by electricity, the positive pole being placed over the lumbar cord and the negative pole on the spermatic cord, the penis, and the perineum. An application should last two or three minutes, and be repeated from four to six times a week during ten weeks. Static electricity may also be applied. Hydrotherapy and potassium bromide may also give good results.—*Medical News.*

Gelsemium Hypodermatically.—Fearn believes gelsemium hypodermatically is one of the few specifics in medicine. When there

are a flushed face, bright eyes, contracted pupils, elevated temperature, and great restlessness, a hypodermatic administration of gelsemium is the remedy. Ten drops fluid extract gelsemium subdermically will often relieve pain and spasms, where morphine fails. It is a simple remedy, and its hypodermatic administration might be advantageously practiced in a great many febrile and painful conditions.—*Pacific Record of Medicine and Surgery.*

Mistletoe.—This old remedy is occytoxic, narcotic, antispasmodic, and tonic: will cause emeto-catharsis, tenesmus, bloody stools, convulsions and death in toxic doses. It may be employed in place of ergot to check uterine hæmorrhages and to cause expulsion of placenta. Is used in cardiac affections and dropsies, and by some as an abortifacient when combined with fluid extract cotton-root and tincture of cinnamon. Has been resorted to in epilepsy, chorea and hysteria, with more or less success.—ELDERDICE, in *Medical Summary.*

Brandt Method in Typhoid.—Wilson bathes the patient every third hour, when the temperature is 101.5°, in water at the temperature of the room, which should be 68° or 70°. He begins bathing as soon as the diagnosis is made, or in uncertain cases before it is definitely made; keeps the patient in the bath about fifteen minutes, gives alcohol while in the water, and encourages the patient to rub himself, to bring a change of water in contact with the skin, to stimulate the circulation, and to help pass the time.—*College and Clinical Record.*

Nascent Chloroform in Vaginal Injections.—When chloral hydrate is brought into contact with a neutral base, vapors of chloroform are set free. The following for an antiseptic and anæsthetic vaginal injection is based on this principle:

Chloral hydrate, 10 parts.
Sodium borate, 5 parts.
Distilled water, 250 parts.

Dissolve the borax in the water and add the chloral hydrate.

—*Western Druggist.*

Iodism.—A very decided intolerance to iodide of potassium in old syphilitics may often be overcome by giving the drug in combination with sodium chlorate, ninety grains of this latter salt being administered daily. By this means a patient has been enabled to take forty-five grains of iodide of potassium without apparent inconvenience, for forty days; but if the chloride was omitted, even with a reduced dose of the iodide, the acute symptoms of iodism at once developed.—*Journal des Practiciens.*

Abortion of Carbuncles.—"Mother tincture" of bryonia, three to five drops every three hours, will abort and cure any carbuncle in five to eight days. It is to carbuncles what belladonna is to scarlet fever, only that belladonna is not adapted to all cases and all phases of scarlet fever; but the action of bryonia to carbuncles is absolutely sure. I have had repeated experience with it and have not failed in a single case.—LIPPINCOTT, in *Homœopathic News.*

Epilepsy.—A girl of ten years suffered for three years from epilepsy, steadily growing worse—the seizures gradually increased in frequency and intensity. April 18th she began taking *Œnanthe crocata.* No attacks until May 12th, when a slight seizure occurred. June 3d she had a mild seizure of vertigo, without losing consciousness, since which no attacks have appeared, and health has been entirely regained.—*Boletin de Homœopatia.*

Anæsthesia.—A slight anæsthesia, usually accompanied by some giddiness, may be produced by taking a number of deep breaths in rapid succession. This may be used in order to lessen the irritability of the pharynx in laryngoscopic examinations, and to lessen the pain of opening boils or abscesses. The anæsthesia thus produced may perhaps depend on anæmia of the brain, although this is not certain.—BRUNTON.

Wilde's Incision.—This has no advantages, and causes the loss of valuable time. If there is really pus in the mastoid cells, the external incision does little good. It is only useful in cases of simple periostitis. In cases of purulent mastoiditis the incision is not reasonable, because it does not attack the seat of the trouble, but merely relieves the one symptom of pain.—*Annales des Maladies de L'Oreille et du Larynx.*

Agaricin.—Few practitioners appreciate the great value of Agaricin, especially in the night sweats of phthisis; the most profuse sweat is checked almost by magic with a single dose. It operates by diminishing

thirst and increasing the secretions of urine. The dose may be pushed to the extent of one grain in the course of twenty-four hours. The single dose for an adult is from one-eighth to one-fourth of a grain.—*Technics.*

Pruritus Vulvæ.—The best treatment, whatever the nature of the malady (senile, nervous, or inflammatory), consists in washing the vulva, vagina and cervix uteri with soap and a mercuric chloride solution every three or four days. After each washing, the regions which are especially pruritic are coated with a thin layer of vaselin, with three to five per cent. carbolic acid.—PRUGE.

Vaginitis.—

℞ Alum, powdered, 1 ounce.
Zinc sulphate, 1 ounce.
Borax, 1 ounce.
Carbolic acid, 1 ounce.
Water, 6 ounces.

A tablespoonful to a quart of lukewarm water as a vaginal injection twice daily.

—*Vanderbilt Clinic.*

Grindelia Squarrosa.—Hypertrophy of spleen, ringing noises in ears, and soreness of the eyes and muscular tissues as derived from colds, are all very readily relieved by this remedy.—*Medical Herald.*

Catarrhal Jaundice.—No remedy excels the phosphate of sodium, a teaspoonful three times daily well diluted with water, or as much as may be needed to keep the bowels freely open.—*Medical Summary.*

Hæmorrhoids.—Ten drops of tincture of horse-chestnut in sweetened water before meals, morning and night, not only stops the pain but effectually relieves hæmorrhoids.—ASTAULT.

Hyoscine Hydrobromate.—This drug not only quiets the nervous symptoms and induces sleep, but destroys in a measure the desire for alcohol.—*Medical Record.*

Hæmorrhage.—Geranium will be found an invaluable remedy in any form. It is also useful in contusions.—*New York Medical Times.*

Note—That eye disorders are frequently aggravated at the menstrual period.

Medical Progress.

OBSERVATIONS ON MEDICAL TOPICS IN FICTION.—A few days ago, while reading a new novel by John Strange Winter, I was very much impressed by a remark made by the married heroine to her husband in reference to her somatic condition—she was pregnant at the time—and I could not help reflecting on the curious medical aspect of life in fiction. For instance, what a charmed—or, if you please, sad—existence the married heroine usually leads! Gifted with a *libido*—if we are to infer anything from the passionate love scenes which take place previous to the marriage—which is only surpassed by the horrible examples in the pages of Krafft-Ebing, she goes merrily along in her butterfly society life with never, or seldom, an accident in the way of pregnancy to interrupt her pleasure. Her sterility is a thing to marvel at. She may even not be satisfied with her own husband, but her liaisons with other men are just as fruitless. Should the author by any chance get her pregnant, she usually does not suspect it until very near full term; then it comes upon her like a shock, and she communicates her suspicions with much coy hesitancy and a few well chosen words to her astonished—no, not astonished, that is too mild—to her astounded husband. Such a thing has never entered his head for a moment. When her time has come the good and skilful old family physician is summoned to my lady's chamber, and in less time than it takes to tell an heir has come to the vast estates of Slippery-Elmhurst.

The prognostic and therapeutic powers of the unmarried heroine are something to make the keen and experienced specialist shed bitter tears of envy. Her betrothed lover, Count Kickhisownwhiskersoff, is carried almost lifeless from the hunting field where his spirited steed has thrown him back downward across a fence. The eminent neurologist, Dr. Neuron, is called in consultation, and after a careful and detailed examination pronounces it—fiction M.D.'s always pronounce—a case of fractured spine, and says there is no hope. The poor paraplegic Count goes on from bad to worse under the most skilful hands that money can procure, and *we* can only see for him the usual dismal picture of sphincteric disturbance, bed-sores, cystitis, and the rest. Just before the time when *we* usually get ready to fill out the necessary paper for the undertaker, the heroine takes a hand in the game. Her beautiful spirituelle face is deadly pale, but there is a gleam of quiet determination in her tear-

dimmed eye. From the side pocket of her elegantly-fitting gown, which clings in soft folds to her tall *svelte* figure, there peeps forth the upper border of a little red-bound volume with a maltese cross in the upper right-hand corner. "Do not give up hope, dearest," she says in a tone of quiet assurance, "my heart tells me that under the care of your adoring Coccygodynia you will live." The sorrowing relatives silently retire, for now they know the Count is saved. The next day on making his visit the doctor is surprised at the marvelous change for the better in his patient, and looks in wonder at the calm, beautiful face of this mere slip of a girl who has installed herself as sole nurse in this most difficult case. How she manages with catheter and bedpan are totally unimportant and insignificant details—to the author. At the end of a few weeks in such cases—or even less, according to the skill of the individual heroine—the patient is restored to his usual vigorous health, and the virgin heroine joins that wonderfully numerous band of sterile married heroines above mentioned.

The mere simplicity of the therapeutic measures by which these gifted young women bring about such marvelous results is truly astounding. By their sunny smiles alone children with far advanced tuberculous joints are restored to blooming health and new joints. Nothing seems to be able to resist them from advanced phthisis to an impacted gall-stone.

A course of six lectures on "First Insults to the Injured" makes them as skilful as the most practiced surgeon in real life. Ever and anon some sorrowing but grateful mother of the slums is heard to remark that were it not for the coolness and presence of mind of that angel—one of the above young ladies—in giving Mikey a dose of castor oil when he sucked the ends off the sulphur matches, the dear child would never have had such a speedy and happy death.

With the comparatively few births and the large number of deaths which occur annually in fiction, it seems as if the juvenile population must soon be wiped out completely. The life of the child in fiction seems to hang usually by the merest thread. He may look healthy and look vigorous, but it is merely apparent. Let the society-loving mother neglect such a child for a single evening and its goose is cooked. Some go off the hooks from simple failure to receive the usual good-night kiss. The demise of others is attributed to the careless habit of their otherwise well-meaning fathers of acquiring a jag at the club. A mere cross word spoken in the heat of passion frequently brings about a fatal issue. When one takes into consideration the extremely delicate health of the ordinary children of fiction and how comparatively small their numbers, it seems strange that their parents can go on killing them off in the grossly careless fashion in which they do. If by any chance, however, the fiction child be vigorous, he is vigorous with a vengeance; his vitality serves the medical reader as an endless source of wonderment. Electric cars may break his legs and fracture his skull, he may fall from dizzy heights, burn almost to a crisp, or be buried under any number of tons of coal; he may even be given up by his ordinary medical attendant, but there is always lurking somewhere in the realms of fiction a skilled surgeon to whom such cases are the merest child's play. Truly the advance in fiction surgery in the last few years has been something incredible.

Prognosis, that *pons asinorum* of real life medicine, is just too simple in fiction. There is no heart-rending suspense as to how any particular case is going to turn out; we know from the very start. "A very serious case, my dear madam," says the eminent physician, Sir Willingtew Gullem, "a very serious case, hæmorrhage into the medulla, but have no fears; with good care we shall have him about in a few days." Verily the penetration of an *x*-ray is nothing to that of this man's keen mind.

Were I a person of fiction and marked out by my creator for a few days illness, there is no disease under heaven I would more willingly elect than a good smart cerebral hæmorrhage, or a fractured spine, provided always I could have the attention of a man like Sir Willingtew Gullem.—J. W. COURTNEY, in *Pacific Medical Journal.*

FOUR DEATHS AFTER ANTI-RABIC INOCULATION.—In December last eight boys of Baltimore were bitten by a rabid dog, five directly through the flesh, the remaining three through the clothing. The eight were promptly sent to a Pasteur Institute, and there inoculated *secundum artem.* The proper time having elapsed the boys were returned to their parents; all danger was supposed to have been averted. Such, however, was not the case, for within a few weeks four died of hydrophobia in quick succession.

In the mind of the average lay reader the lives of one-half of these boys are probably supposed to have been saved by the Pasteur Institute, and to all readers, whether medical or lay, the fact is obvious that the inoculation failed to save the lives of one-half.

All of the fatal cases were bitten directly through the skin, the virus being inserted immediately by the teeth of the dog; three of the recovered cases were bitten through clothing, while the fourth had two indistinct teeth marks in the scalp and a nick in the helix of the left ear. Of the cases bitten through the clothing, therefore, it is doubtful whether any virus was carried into the skin with the dog's teeth; indeed, it is quite probable that the teeth were wiped clean of all danger by the cloth through which they passed. The wounds on the scalp of the fourth boy were of the slightest description, having almost entirely healed before the boy reached New York; the cartilaginous portion of the ear alone furnishing a probable entrance for the virus. Of course there is a possibility of infection in this slightly bitten case, but the chances of danger were far less than in the cases of the four boys who were more severely bitten and who died.

From the foregoing the question naturally arises, To what extent were these eight boys benefited by the Pasteur treatment?

It is a well known fact that all persons bitten by rabid animals do not die or even have hydrophobia. From the Annual of the Universal Medical Sciences for 1889 we quote:

> The proportion of canines that develop rabies as the sequel to wounds inflicted by other and *known* rabid carnivora would seem to be extremely small. One author (Stockwell) quotes them as less than five per cent., giving instances in which many animals bitten several times often recovered without mishap; and he cites Hunter as fixing the proportion of one in *twenty-one;* Hamilton, one in *twenty-four;* Nieuman, one in *thirty-five;* Fabre, but *thirty-one* out of a total of *nine hundred and thirty-two;* and Youatt treated four hundred members of the human race supposed to have been bitten by rabid creatures without a single failure. H. Voeller, of Sacramento, however, in speaking of immunity, makes Youatt say that two dogs out of three bitten become rabid. Cattle and sheep are far less susceptible, and man the least so, for Hunter estimated the proportion as one in twenty, and Hamilton as one in twenty-five. According to this computation two-thirds of the persons bitten escape the disease, and of the thousands of persons who have attended on patients with hydrophobia no authentic instance has been recorded in which the disease was contracted either by attendance during life or infection after death.

With this testimony we think it justifiable to agree with the British Encyclopædia, that less than one-half of those bitten by rabid animals die from the effects of the bite.

In these statements the question of intervening clothing is not considered, and we are therefore left to assume whatever percentage of direct bites we please. We do not think an assumption of one-half direct and one-half indirect bites is unfair; and from this basis we still find a few of those who are infected directly by the teeth of the rabid animal recovering from the bite without fatal termination.

We must a second time ask what benefit the eight Baltimore boys derived from inoculation with anti-rabic virus?

A large majority of medical men are satisfied with this treatment devised by the learned Pasteur, and we will not for one moment dispute the validity of the theory; but—what of these Baltimore boys? Why did the four who received the serious bites die, and the four whose injuries were comparatively trivial recover.

Before the days of cultivation of anti-rabic virus from either canine saliva, brain or spinal cord, less than one-half of those bitten by rabid dogs recovered; under the use of Pasteur's system of inoculation exactly half of these dog-bitten boys died; the half that recovered probably had no virus instilled into them from the dog.

From the Annual of the Universal Medical Sciences for 1890 we extract the following:

> While there are undoubtedly some intelligent persons who do not accept Pasteur's deduction, the probability is that the opposition will finally be confined to the smaller collection of unreasonable cranks.

Possibly this day may come, but of a certainty there is still good, solid ground for questioning the methods used in practically applying Pasteur's deduction, good grounds not only for "*some* intelligent persons," but for *all* intelligent persons—nay, all *scientific* persons to question the methods of the Pasteur Institute of New York.—*Clinical Reporter.*

Function of the Hair.—The study of the descent of man and of embryology has shown that our ancestors were entirely covered with hair, as are the anthropoid apes. According to Darwin the gradual disappearance of the hair is due to the repulsion felt by women for hairy men, and their liking for the opposite—that is, to sexual selection; in the same manner he explains the exaggerated development of the hairy scalp in women, and of the beard in men, for in women the long hair and in men the beard have always been considered as attributes of beauty.

As to the physiological functions of hairs, it is admitted that they are modified sense organs, which have lost all connection with the nerves. It is probable that in primitive man the distribution of the hair upon the body was irregular, and that length, color,

structure and thickness varied with functions. The hair remaining upon the body in the process of evolution has been left for a definite purpose. Certain hairs serve as organs of touch, notably the eyelashes, the bulbs of which are surrounded by a network of nerve fibres, and in a less degree the hairs of the eyebrows. Both these serve to protect the eyes; for being sensitive they give warning of danger, so that reflex closure of the lids is produced. The eyebrows also prevent perspiration from running into the eyes, while the eyelashes keep out dust. The eyebrows and lashes also serve a purpose in sexual selection. The down which covers the body is also endowed with tactile sense; the hair in the region of the genitals and anus being the least sensitive. A thick growth of hair is also found in those parts of the body where friction must take place between contiguous cutaneous surfaces as in the axillæ, groin, perineo-scrotal and perineo-vulvar regions. By experiment with pieces of skin covered with hair it has been shown that the hirsute covering markedly diminishes the friction of the cutaneous surfaces.

In animals the hair serves to maintain and regulate the heat of the body, but in man the hair of the scalp alone serves this purpose. Hair is itself a poor conductor of heat, and retains air, also a poor conductor, in its interstices.—Exner, in *Wiener Klinische Wochenschrift.*

A Rare Risk from Anæsthetics.—At the Berlin Society of Obstetrics and Gynæcology was shown a stomach perforated by an ulcer after anæsthetization: Four weeks after parturition the patient was subjected to a secondary suturing operation on the perineum and vomited immoderately after anæsthetization. The following day she was collapsed, short-breathed, and complained of stabbing pain in the right side; abdomen tympanitic, but not very tender on pressure; pulse about 120; no elevation of the temperature. She died thirty-six hours after the operation.

When the abdomen was opened post mortem the protruding coils of intestine were accompanied by an abundant escape of liquid that was of a cloudy yellow appearance and smelled aromatic and alcoholic. The peritoneum, including the serous coat of the intestine, showed recent hyperæmia, and was partly covered with lymph. There was a decided hour-glass shape to the stomach, owing to firm adhesions of the cicatricially contracted lesser curvature to the left lobe of the liver in consequence of an old ulcer of the stomach. At the pylorus was a transverse laceration about two-thirds of an inch long, through which the mucous membrane was prolapsed; the neighboring portion of the organ was infiltrated with bile, and there was a recent ulcer of the pylorus. The perforation had not given rise to hæmorrhage.

The account leaves it to be inferred that the perforation was due directly to the excessive vomiting that followed the anæsthesia, but what anæsthetic was used is not stated. Ulcer of the stomach must probably be included among the morbid conditions that render the vomiting incidental to general surgical anæsthesia dangerous. In this instance the ulcer does not seem to have been diagnosed.—*Centralblatt für Gynäkologie.*

Vaginal Tumors.—Vaginal tumors are so rare, and so little is said about them, that the following case may be of some interest:

A woman, aged thirty, mother of two children, and at about the fourth month of pregnancy, complained of great pain and irritation about the vulva, a constant bearing down and a troublesome leucorrhœal discharge; the rectum and bladder were also involved in the distress. The vagina was almost completely filled by a number of tumors of various sizes, elongated, larger at base than apex, and tapering towards the extremity, springing from the anterior wall. The largest was about the diameter of the fourth finger and an inch in length; all inflamed, excoriated, and very tender and sensitive to touch. Their structure was apparently fibrous. Relief being imperative on account of the severe pain and discomfort, they were removed with scissors, after firmly tying off at their bases with a ligature passed pretty deeply to avoid hæmorrhage. Complete relief followed, and the woman was confined at the full time without difficulty of any kind.

These growths were not cysts, nor possessed of a pedicle as is usual with polypi; neither were they warty; there was no reason to suspect specific disease. Non-recurrence evidenced there was no malignancy. Fibroids of vagina do not agree with the description given, but the structure, to the naked eye, was certainly fibrous. Pregnancy no doubt caused a rapid, but did it originate, growth?—*Canadian Medical Review.*

Rôle of Clitoris in Neuroses.—I have been forcibly impressed for years by the number of obscure neuroses in woman, the ætiological factor of which was anomaly of

the clitoris. I have been led to question, therefore, if the general practitioner, and pædiatrists in particular, pay sufficient attention to this small and yet most sensitive organ. The fact is established that preputial adhesions of the male organ are a common cause of masturbation, of enuresis, of chorea minor. In woman I have determined a similar causal relation dependent on clitoridal adhesions, and I have over and again relieved intractable neuroses by the simple stripping of the prepuce from the clitoris. Indeed, it has become a habit with me to examine the children I bring into the world—the male for preputial adhesions of the glans penis, the female for clitoridal. I also distinctly impress on mothers and on nurses the prime importance of washing the genital organs so thoroughly as not to overlook the smegma which otherwise will form around the prepuce of both penis and clitoris. This is a point worth dwelling upon, for the careful examiner will note that both nurse and mother are reluctant—from the fear of inflicting damage—to cleanse the genitals of the female child as scrupulously as the remainder of the body. Hence neuroses may develop.—Grandin, in *Pediatrics*.

Abdominal Exploration.—The direct method is preferable to the vaginal route in case of neoplasms or obscure enlargements which are situated in the abdominal cavity, or have risen above the pelvic brim, especially if they are more or less adherent:

In ascites of doubtful origin, more particularly when tuberculous or malignant disease is suspected:

In disease of adnexa in which the latter are situated near or above the pelvic brim, as established by bimanual palpation:

Where history and symptoms point to general intestinal adhesions, and, above all, when appendical complications are suspected:

In ectopic gestation before rupture, when the sac is high up, at the side or in front of the uterus, instead of in Douglas' pouch:

Where there is intractable pelvic and abdominal pain of obscure origin, including the so-called neuroses.—Coe, in *New York Polyclinic*.

Sterility.—Aside from congenital deficiencies and anomalies of development of the essential organs of generation, we have been taught the chief reason for the sterility of woman is narrowness or flexion of the uterine canal. When it is remembered that the narrowest pin hole os, on careful manipulation, will admit a sound which is many times larger than the self-propelling spermatozoid, it would seem that this reasoning is inconclusive. I long since concluded that stenosis of the cervix has practically nothing to do with the production of sterility.—Massey, in *Medical News*.

Saliva a Bactericide.—Saliva possesses bacteria-killing properties, and one of its rôles is weakening the virulence of pathogenic microbes. The chemical properties of the saliva and the soluble products of the microbes contained therein excite an intense diapedesis, which is carried on in the mouth, and which attains its maximum at the surface of wounds. Also the mucus of the buccal cavity, when there is a suspension of the secretion of saliva, possesses bactericidal properties. Again, saliva induces incessant epithelial desquamation, and vital concurrence eliminating the bacteria not acclimated. —*American Medico-Surgical Bulletin*.

Pessaries.—There seems to be an impression that a *pessary* is intended to reduce a displacement of the uterus. This is a serious mistake, as its purpose is only to retain in place, by a pulley-like action on the wall of the vagina, the replaced organ. If a pessary be introduced while the uterus is retroverted, it tends to render the condition worse by converting it into a retroflexion—the fundus bending over the posterior bar of the pessary.—Montgomery.

Visual Illusions.—A physician declares he has sometimes been able to convince persons subject to visual illusions that the fancied figures were not real by asking them to push one eyeball up a little with the finger. This makes all real objects in their neighborhood appear double, as any one can prove to himself, but it does not double the false image.—*Popular Science News*.

Uterine Disease.—A fixed, boring, dull pain at the lumbo-sacral junction is an invariable indication.—*Medical Fortnightly*.

Locale of Skin Diseases.—Psoriasis is usually situated on extensor, eczema and syphilis on flexor, surfaces.

The Medical Age.

Vol. XV. DETROIT, MAY 25th, 1897. No. 10.

Original Articles.

THE MODERN ESTIMATE OF QUININE.

BY HORATIO C. WOOD, M.D., LL.D.

This most interesting drug has been the subject of much romance, superstition, and speculation; therefore I endeavor to define its true value as judged by the latest and best standards.

The cinchona barks are sold by assay,—so much of the alkaloids, so much the price,—a method that is both proper and scientific. Formerly the bark itself was employed in medicine, but this has now been discarded; only in the form of Huxham's tincture does it still survive, and as this is too feeble to be used as an antiperiodic, its scope is simply that of a stomachic tonic.

Four alkaloids are found in the bark, namely, quinine, quinidine, cinchonine, and cinchonidine. Of these the first is the strongest; yet until within recent years the others were used quite freely because the supply of bark as found on the slopes of the Andes was being rapidly exhausted. Now, however, cinchona is cultivated in India, Java, Ceylon, and to some extent in South Africa, so that the supply is practically inexhaustible, and the lesser alkaloids generally ignored. The alkaloid quinine is insoluble in ordinary menstruums, but its sulphate salt yields to alcohol and weak acids; the bisulphate is still more freely soluble; the hydrochlorate most soluble and best of all.

Quinine should never be given in the form of sugar-coated pills, for these frequently pass through the entire gastro-intestinal tract intact. The powdered form is preferable, but because of its bitter astringent taste it may be enclosed in capsules which, being dissolved by the gastric juice, permit the salt to be acted upon by the stomachal secretions. Here is explained why enormous doses of quinine have been given by the mouth without deleterious effect There have been cases reported in which half an ounce, or even an ounce, taken in a short space of time has had no untoward effect. Undoubtedly the stomach was overwhelmed by the mere bulk of these doses and the mass swept into the intestines before any great absorption could take place. I believe a much more serious effect can be produced by giving smaller doses over a longer period. It is well to remember this physiological fact when it is decided to give quinine in suppositories by the rectum. As a rule this method of administration is a poor one, but if employed the doses must be much larger than by the mouth—for example, ten grains every two hours for twenty hours. It is well to use the most soluble form also. This by the mouth would cause serious cinchonism.

The ideal method of prescribing quinine is in solution, suspended in gum Arabic or starch. When gastric irritation exists and quinine is indicated imperatively, it may be used hypodermatically, but it must be remembered it is a local irritant, and apt to produce abscesses, ulcers, etc.; in a few instances fatal tetanus from its use in this way has been reported. In any event the drug must be thoroughly dissolved in an excess of acid. Being a local irritant, and eliminated by the kidneys in a concentrated form, the counter-indications to hypodermatic use are stomach, kidney and bladder trouble.

The rate of absorption of quinine depends upon the form in which it is given and the method. In solution, it has been found quickly in the saliva, the milk, and the perspiration. As a rule it appears in the urine within thirty minutes after ingestion, and is two-thirds eliminated in forty-eight hours. The most of the quinine is out of the system in twelve hours, but it may linger for several

days after heavy, long-continued doses. These facts are interesting and valuable in connection with the clinical application of the drug. I would lay it down as the rule to be remembered, that the maximum effect of the drug is obtained within four or five hours after administration. In a few hours after giving a three- or four- or five-grain dose it may cause slight tinnitus, fulness in the head, and possibly slight deafness,—this is the mildest form of cinchonism. In large doses the symptoms are intensified; there is the clatter of wedding-bells, singing of teakettles, discharges of musketry, and increased deafness. A toxic dose is uncertain in amount owing to the fact, already mentioned, that the bulk administered may inhibit absorption; but undoubtedly three to five ounces scattered over three days will be fatal to life.

Quinine apparently in many instances acts as a stimulant to the nervous system—not to the cerebrum, but by inducing a general feeling of activity. I doubt if there is much actual truth in this stimulation; at least it is not particularly borne out by physiological experiments. Undoubtedly in overwhelming doses quinine overcomes the functions of the cerebral cortex. Brown-Sequard claimed it is capable of producing convulsions, hence when given to epileptics the seizures are rendered more frequent; but this I do not believe to be true, either experimentally or clinically. Undoubtedly, however, the disorders of special sense produced are caused by congestive action upon the peripheral sense organs, especially if the tendency to congestion already existed. For example, I have seen a typical instance of this effect, when a dose of the alkaloid caused congestion of the blood-vessels of the middle ear in a person suffering from chronic inflammation of the tympanic cavity on one side, while on the sound side, less easily affected, there was absolutely no tinnitus at all; hence in middle-ear inflammation quinine is contraindicated.

Quinine also may disturb vision; twelve grains produced amblyopia in seven hours in one case; and this condition may last permanently. In some cases examination of the eyes shows no change at all, in others the disc is pale and the vessels small. Paleness is a puzzling symptom as it shows the opposite condition to congestion, but it has been explained on the theory that the slightly swelling nerve has cut off the supply of blood.

In toxic doses the drug is a powerful paralyzant to all nerve centres, death being due to failure of respiration; but this power of quinine is comparatively feeble in man. The action upon abdominal organs is not pronounced except in its local action; in moderate doses it stimulates digestion and increases appetite; in larger it may cause nausea and vomiting. M. Piorry claimed that quinine lessened the size of the spleen in intermittent fever, but this is not believed to-day; by removing the cause of the enlargement, improvement in splenic tissue takes place, but not due directly to the local action of quinine.

The circulation is not materially affected by quinine, for there is no increase in force or rate of pulse, though there is some rise in arterial pressure for a time, succeeded by a fall largely cardiac in its action, due to action on the heart valve and muscles in the arterioles. On the blood it has been determined by Binz and others that quinine in the proportion of one part to four thousand assists the amœboid movement of the white blood-cells. All forms of protoplasm die if the solution of quinine added to them is made strong enough, but this action in living tissues in medicinal doses is not important. Thus quinine among its other qualities is a germicide: For example, powdered cinchona bark placed on meat will preserve it for a long period; quinine in the blood checks the ozone-carrying power of the circulation, while after death it checks putrefactive changes.

It has great reputation in the South as an oxytocic, but I do not believe it will produce abortion in the perfectly healthy female; neither, in my opinion, will it induce such accident in malarious women; but in labor once commenced I do hold it to be a powerful stimulant to uterine contractions. The pains are not, however, like those produced by ergot, but seem due rather to its effect in arousing the general nervous forces of the system. In cases of uterine inertia from exhaustion quinine is often most happy in its results.

Ranké was the first to discover that quinine, internally, reduced the tissue-waste by

lessening the excretion of urea. It has little effect on the carbohydrates, but powerfully depresses the elimination of nitrogenous excretory principles. This application of the drug is at once obvious when one comes to study its therapeutics. On account of its ability to inhibit fermentation processes it has been recommended in the so-called septic diseases—septicæmias, etc.—but it was soon found it was far from being a specific and without distinct effect upon the system excepting as a tonic. Given in dose large enough to be fatal to the fermentative germ it would also be fatal to tissue.

Quinine was once used to considerable extent externally as an antipyretic, and considered of great importance, but here again its fame has waned. It has no influence on animal temperature, although if given at the time fever is declining it seems to have the property of increasing the rapidity of the fall; for example, in a case of typhoid fever if quinine is administered while the fever is ascending it has no apparent effect on temperature, but given in the later stages it seems to increase the rate of fall. It has no real value in low fevers excepting as a general tonic.

Tonics are drugs of little therapeutic value as a rule; but in general debility without apparent cause, in convalescence from acute diseases, in obscure cases where one desires to stimulate the gastro-intestinal tract, or given as a stomachic or simple bitter, quinine in moderate doses of from four to ten grains is of value. It has been given in quantities of from thirty to fifty grains daily in cases of acute rheumatism with good result, but the introduction of the salicylates has practically removed it from the list of anti-rheumatics, excepting where other remedies of the class have failed or where the acute symptoms have abated but profuse weakness and sweating persists; here it is often of great utility.

In neuralgias where the cause is obscure, but not malarial, excellent results often accrue to the use of this drug. I recall the case of a neuralgic woman, with outrageous pain, in whom heroic doses of quinine—forty-five grains daily—permanently relieved her suffering. In chorea I have found that there were two sets of patients—one in which cinchonism was produced and the drug of no avail, another in which there is no cinchonism and the results excellent. In one instance a girl's chorea was controlled by the administration of a thousand grains of quinine in a month, no ill effects supervening at any time.

In cases of lack of control of the bladder, where there is diminution of inhibitive power, the results from quinine are good.

It is, however, as an antiperiodic that quinine stands to-day pre-eminent. Its power in this direction, once strange and mysterious, has now become simple and intelligible. It has been the fault of the pathologist, not the therapeutist, that the action of this drug on malarial affections remained for so many years a mystery. When Laveran demonstrated the organism in the blood, the therapeutist had but to apply his already existing knowledge of the germicidal properties of the drug to make the chain complete. The action of quinine is not an action on the individual suffering from the disease, but a direct power over the *plasmodium malariæ* which is producing the disorder. It was once hard to see how prophylaxis by the use of quinine was obtained, but now it is simplicity itself. I remember a famous demonstration of this prophylactic power of quinine which occurred in India: One company of soldiers received each three grains of quinine every other day; the other companies received none. Among those taking the drug only two or three were affected, while among those who had no quinine three hundred out of five hundred were ill. Five grains twice a day is active prophylactic in cases of decidedly strong contamination.

The worst form of malarial fever is the pernicious or malignant intermittent, in which frequently a second paroxysm induces fatality. Here it is necessary to get into the system at once a large amount of the drug. There is no time to temporize, but from fifty to seventy grains must be given during the first twenty-four hours. It is well to order a dose of calomel at the outset, but if the delay incident to the action of the mercurial is feared, begin with the quinine at once, administering every two or three hours; give in solution, or if need be hypodermatically, twenty to thirty grains. Remember that in this serious type of malaria the patient may die, and act accordingly.

In the bilious or remittent type, a disease which was once common in this country, where the fever abates but never disappears, there are different symptoms which require different treatment. Avoid the use of quinine at the onset unless the symptoms are very severe. Start with a free purgation by means of calomel, to be followed by a mild aperient. Pilocarpin may be given hypodermatically or by the mouth for its effect upon the liver and kidneys. Then on the next drop of the temperature towards the normal give twenty-five grains of quinine; if there is much gastro-intestinal irritation, larger doses by the rectum may be administered. This dosage should modify to an extent the severity of the symptoms. If the fever is not aborted, follow the case along and repeat the treatment. If fever has been abated now give quinine in moderate doses, or wait twenty-four hours and repeat original dosage. There is a tendency for these fevers to recur on each seventh day, that being apparently the life cycle of the organism; hence full doses should be exhibited every week following the abatement of the disease. Often the fever will be of such elusive, irregular type that there will be great difficulty in diagnosis, but in such obscure cases quinine should always be tried; it will serve in itself frequently as the diagnosis of the case.

I recall a case now which occurred some years ago: I was called to Burlington to see a case of supposed brain tumor, but on examination believed the case to be malarial in nature and suggested that treatment. I was laughed to scorn by the local physicians, but to humor me the drug was given, and the woman immediately got well.

Now taking the ordinary malaria as we find it, let it be imagined a patient presents himself with the history of a chill followed by fever at four o'clock of the day before. It is desired to prepare him so that for six hours before the next chill his system shall feel freely the action of quinine. How shall this be done? The first essential is to see that his prima viæ is acting well. He is ordered to take, that night, a purge of calomel followed by a compound licorice powder or salines. By six in the morning these drugs will have operated. Then begin with quinine; if robust, order a dose of five grains before breakfast; if not, begin say at 8.30 A.M.; then five more at 12.30; then by the time the chill comes on he will be under the influence of fifteen grains of the drug.

In Southern Delaware, and around the Great Lakes, fifteen grains may seem to only increase the friskiness of the plasmodium. In such cases give five grains at 8.30, 9.30, 10.30, 11.30 A.M., and 12.30 P.M., considering duly the rule that the longer the chill lasts the harder it is to kill. Stop it at once even if it requires forty grains of quinine to do it, for malaria in itself is a protective against cinchonism. Then repeat moderate doses of quinine, increasing again at expected chill times, and give a stimulating tonic treatment.

In chronic malarial poisoning quinine is of little avail. Here arsenic should be exhibited. Remember that there often exists a marked idiosyncrasy towards quinine; also to never give it in meningitis, chronic ear disease, or congestions; but even where no such troubles exist it may be found the drug apparently acts as a virulent poison. I have seen an intense rash, partial collapse, failing heart, nausea, and even œdema result from the use of a few grains of the drug; in one case it seemed as if double the moderate dose given might have brought about a most unpleasant termination.

Philadelphia, Pennsylvania.

SUPPURATIVE INFLAMMATION OF THE FRONTAL SINUSES.

BY F. E. SAMPSON, M.D.

With the location and general anatomy of the frontal sinuses I take it for granted my readers are all well acquainted. These cavities have probably suppurated in some individuals ever since they formed a place in the brow of man.

As a distinct entity, suppurative inflammation in this region has not occasioned much remark until recent years. Along with the other accessory cavities of the nose, the frontal sinus is beginning to attract something like the attention it deserves. Most of our text-books I am well aware treat the subject rather lightly, and refer only to those cases induced by the outlet becoming occluded. They speak of the frontal sinus as a well

drained cavity, and on this account deserving little notice so long as the infundibulum is open. I might mention the fact that the uterus is a well drained cavity, and on the same ground urge expectancy in the treatment of intra-uterine suppuration as long as the os remains open. The profession has certainly learned to look with suspicion upon suppurative inflammation in any part of the body—especially in any part that is in close relation to the brain, thereby rendering possible the occurrence of thrombosis of its sinuses, infection of its coverings, and metastatic abscess in its substance. The study of suppurative lesions of the nose and ear with their accessory cavities is throwing light on the ætiology of encephalitis, as the study of the vermiform appendix has elucidated peritonitis. Furthermore, suppuration of the nasal accessory cavities is generally recognized as having an important bearing on general health, aside from the local mischief and its possible transmission to the encephalon.

When is further remembered the position of the frontal sinus in relation to other and accessory nasal cavities, its outlet in close proximity to those of the ethmoid cells and maxillary sinus, it is at once apparent that persistent suppuration from the frontal sinus might be a source of constant reinfection of these cavities. I have been repeatedly impressed with this fact by cases of maxillary abscess that were treated without success until the corresponding frontal sinus was made a party to the offence and placed under discipline. I think the foregoing amply evidences, then, the importance of this lesion.

Infection of the frontal sinus usually occurs by extension through the infundibulum, or directly from without by trauma. Neoplasms within the sinus may become infected through the circulation. Contributory features are inflammation of the intranasal structures. In those cases with obstructed outlet (narrowing of the nasal cavities by deviated septum, polypi, or hypertrophies), one or all are often important elements in producing. The acute infectious diseases, especially *la grippe*, seem to establish conditions favorable for the infection of this as well as the other accessory cavities of the nose. Again, suppuration in the ethmoid may break through and directly infect the frontal sinus. Or abscess of the maxillary sinus may be the primary lesion and establish direct communication with the frontal sinus.

The diagnosis in true empyema is not generally difficult: with complete obstruction of the outlet the pressure phenomena become pronounced; pain is severe; mental application impossible; insomnia often a marked feature; percussion over the sinus elicits pain and transillumination; there is a dark area over the suspected region; or the abscess may bulge into the orbit. With this array of evidence the only thing to be excluded would be a solid neoplasm, which could not be positively excluded without invading the cavity.

The cases in which the outlet remains open or is intermittently obstructed are not so easily recognized. Pain may be referred to the frontal region in maxillary sinus; abscess when there is no suppuration in the frontal sinus. On the other hand, suppuration may occur in the frontal sinus with little or no pain, and percussion elicit no tenderness so long as the outlet remains open.

History of a purulent discharge from one side of the nose is highly suggestive of trouble in some of the accessory cavities; and having ruled out foreign body, rhinolith, septal abscess, and purulent dacryocystitis, next is necessary to determine which of the accessory sinuses is at fault. With the exception of the sphenoidal all these cavities drop their overflow into the middle meatus, where it may be seen along the lower border of the middle turbinate. Much has been written by way of attempt to locate the lesion by appearance of pus, by color and consistency, by constancy or intermittence of flow, by posture of the patient and observing the location of the pus,—the inspected parts having been previously cleansed. Evidence derived in this way is, however, apt to be, *per se*, very indefinite; and furthermore, even though one is positive of the existence of pus in the maxillary sinus and ethmoid cells he may be still in doubt as to the frontal sinus.

Transillumination is by some considered unimpeachable; and while my experience therewith so far has been satisfactory, yet I can see how it might lead one to error.

Ordinarily, when the sinus shows dark, pus or at least a greatly thickened mucosa will be found. But mark briefly, the possibilities: If the sinus shows clear it means one of two things; it is either healthy or contains a mucocele: If clearer than its fellow it does contain a mucocele (except the other sinus contains pus or has a thickened mucosa), unless it be a solid neoplasm, or the sinus is absent and its place occupied by a part of the frontal lobe of the brain.

One must also bear in mind that even though pus is found in the middle meatus, and all the other accessory cavities can be excluded from participation, and even a dark area is found over the frontal sinus, that all these can come from a neoplasm which has been infected either by way of the infundibulum or through the circulation; in other words, the certainty of pus coming from the frontal sinus does not rule out the possible existence of a neoplasm.

It appears then that the diagnosis of a suppurative frontal sinus, unaccompanied by complete obstruction of the outlet, must often, if not usually, be reached by the consideration of well selected probabilities. Assuming now that there is a suppurative lesion of the frontal sinus, what is to be done about it?

I need not attempt to enumerate the various measures which have been accredited with relieving or *curing* this trouble. Many cases undoubtedly get well spontaneously. If one happens to treat the case by some mild or soothing method he naturally takes credit to himself, the credit often being about the same as that which obtains in nursing an abscess elsewhere—until it breaks. I do not mean to say that methods of treatment other than operation are without value. In the absence of urgent indications, expectancy is often a good line to follow—at least until one can see that Nature unassisted is not going to get through with it. Before resorting to operation on the frontal sinus all possible should be done for any nasal disturbance: Keep the parts clean, and even if the infundibulum is occluded applications of cocaine solution about its lower orifice may restore its potency. If by this means one succeeds in opening the passage—and in cases where it has remained open—attempts may be made to medicate the sinus with some gas such as formaldehyde forced into the nose under pressure. Our English brethren claim good results from oxygen. Also the general condition of the patient must not be forgotten.

If these measures fail to give the desired result then operative procedures may be considered, and the indications therefor are as follows:

Retention of pus within the sinus not relieved by the above mentioned measures.

Persistent purulent discharge from the frontal sinus after any other involved accessory cavities of the nose have received proper attention, viz., opening and treatment of the ethmoid cells and maxillary sinus in event of their involvement.

If after months of thorough but unavailing treatment of suppurative disease in the ethmoid or maxillary sinus, and transillumination of the frontal sinus shows a dark area, one is justified in opening this cavity from without, even though there be no evidence of empyema or positive proof of purulent flow through the infundibulum.

Before considering methods of operation I may briefly review some recent studies in anatomy of the frontal sinus. Tilley after examination of a hundred and twenty skulls reports:

> The capacity of the frontal sinuses varies from a few minims to one-half ounce or more. The sinuses may be absent in the adult. The prominence of superciliary ridges is not a safe index to the capacity or extent of the frontal sinuses. The two cavities are not always symmetrical; the cavity on one side may be small, while its fellow may be large; or it may even be absent on one side, the other being well developed. The openings and direction of the infundibulum are also subject to wide variations.

In speaking of operations it is not necessary to refer to methods in detail. The frontal sinus may be approached from below, by way of the nose, or from without by opening through the anterior wall. By the intranasal method an attempt is made to catheterize the infundibulum, and in event of this failing, a way is broken through with gouge, burr, or trephine—a method that has distinguished advocates. A glance at the anatomy, the frequent anomalies, and a review of the disasters that have followed this method, how-

ever, tend to excite one's fears A few months ago Vohnsen reported a case where the attempt was made to medicate the frontal sinus by blowing powder through a catheter supposed to be in the infundibulum, but the autopsy revealed the cranial cavity instead of the sinus had been medicated. Another is reported by Mermod, in which a probe and subsequently a catheter was supposed to have been passed into the sinus, but fatal meningitis followed, and at the post-mortem, part of the frontal lobe of the brain was found to occupy the space usually relegated to the sinus. And even when successfully performed this only affords drainage, and perhaps the possibility of medicating the cavity.

The cases that can be catheterized *without force* will, in my opinion, get along fully as well without; when force is used the operation is painful and likely to require frequent repetition; further, it does not give exact information as to the contents of the cavity. It may be the means of infecting a neoplasm which has given rise to pressure symptoms to the shadow of empyema on transillumination, and possibly delay the recognition of conditions that should receive prompt and radical attention.

These considerations, along with the doubts that must often arise as to the accuracy of diagnosis, lead me to believe that where operative interference is indicated, opening through the anterior wall is to be preferred, and that the opening moreover should be of sufficient size to permit free exploration.

Créston, Iowa.

RHUS AND ALLIED POISONINGS.

BY W. E. HARRIMAN, B.SC., M.D.

Under the title of "Dermatitis Venenata" is included a number of disorders of the skin arising from the application of irritants. The condition induced depends largely upon the character of the irritant, and likewise to great extent upon the peculiar nature and disposition of the individual affected—some being able to handle with impunity that which upon the slightest contact acts as a most vicious poison to others. The existence of this latter fact explains, in part, the great diversity and the variety of materials reported as active agents in ætiology.

To specify all the plants, drugs and compounds which have at various times been found to produce dermatitis venenata would include a surprising number of items. Doctor J. C. White, of Boston, among others, enumerates fleabane, cowhage, nettle, euphorbia, cinchona, clematis, Indian turnip, smartweed, burdock, bayberry, wood anemone, balm of Gilead, and even the beautiful catalpa. Other lists include such agents as croton oil, cantharides, mustard, tartar emetic, chrysarobin, turpentine, tar, sea salt, etc. Quite recently came under my observation a marked case, due unquestionably to the few drops of chloroform that fell upon the cheeks during anæsthesia; ether also sometimes acts in the same manner, and local poisoning has been sometimes seen from iodoform and mercuric chloride. There are also a number of irritants arising from the animal kingdom that may be a cause, such as contact with jellyfish and sea-urchins, stings of bees and wasps and certain reptiles, and bites of certain familiar vermin, including gnats, bedbugs, and mosquitoes. Another common cause in domestic life is the use of cheap soaps, arsenical wallpapers, paints of toys, certain varnish on furniture, dyed clothing, etc. I once had a serious case which arose from the continued wearing of a paper collar. Finally is that arising from contact with so-called "poison-ivy," which perhaps most frequently comes under the physician's care. There are several plants known to the laity by the title of poison-ivy, though properly this title is applicable to but a single species; all belong to the order Terebinthaceæ and genus Rhus, and are likewise indigenous to Canada and the greater portion of the United States, and while most of the species are not poison, two of the genus mentioned are markedly so.

Rhus venenata, also known as "poison-sumac," "poison-dogwood," or "poison-elder," and generally found in swampy localities, while the most active is fortunately quite rare; the trunk is often several inches in diameter, its leaves pinnate with from six to eight leaflets attached to each midrib; and it strongly resembles the common elder and sweet sumac, although the latter are easily distinguished by the fact their leaves occur with serrated edges and pointed tips. The second and most common species is the *Rhus*

Toxicodendron, generally distributed east of the Rocky Mountains, and which shows distinct variation in size and shape of the leaves in different localities. Botanists admit, however, but two real varieties of the Toxicodendron, one of which grows erect without support, and because of its tree or bush-like character is often termed "poison-oak," and the more common variety of which grows as a vine, climbing over rocks, supporting itself by stumps, fences, thickets, etc. It is often mistaken for Virginia creeper, but may be readily distinguished by a mere glance at its foliage, that of the latter possessing five leaflets whereas the toxicodendrons possess but three.

As to the principle which directly incites poisoning by this growth we are by no means well informed. In 1888 it was known that Maisch had discovered a volatile principle called toxicodendric acid which was believed to be the agent at fault, but there are so many phases of rhus poisoning for which this will not account that the theory is now very generally discredited.

Some of the peculiarities noted of toxicodendrons are: they are most poisonous when in blossom (during June and July); are more active by contact when moist, as on dewy summer mornings or after warm rains; also are more virulent in autumn than in spring. One of the very worst cases which ever fell under my observation was that of a young lady who, attracted by the gorgeous colors which the leaves present in October, wore a wreath about her chest and throat during an evening reception. Occasionally persons are poisoned by handling the dried plant, and the claim has even been made that the typical eruption will sometimes follow the internal administration of rhus tincture.

The marked difference in susceptibility as regards different individuals is hardly to be explained by natural immunity. Since the exact nature of the irritant is unknown the medical profession is unable to understand the exact principle which underlies the fact that some people are exempt from the poisonous action of rhus, no matter how great or prolonged the expo ure; the theory of temperaments and that the sanguine is more frequently affected than the bilious appears to be scarcely tenable.

Notably most of the agents mentioned as producing dermatitis venenata are apparently identical in pathology and symptomatology. The fact that such a variety of substances induce the same identical lesions is very suggestive of a bacteriologic factor; indeed it would seem rational to assume that these, by acting as simple irritants, create a condition favorable to the growth and development of a germ whose mode of life necessitates the disease in point; but I have been unable to find a single line corroborative of this idea anywhere in medical literature.

After exposure to either of these species of rhus or similarly acting agents there is usually a latent period—a period of incubation as it were—varying in length from two to twenty-four hours. Then is experienced a sensation of heat and intense itching on the hands, especially on the dorso-lateral surfaces of the fingers, which later are participated in by the face; the affected surfaces become rapidly reddened, tumefied, the seat of active vesiculation and serous exudation, the latter dripping from the surface and drying in thin crusts. When the hands are brought in contact with other parts of the body—the pudendum and genitals, for instance—these in turn suffer. The face may become so swollen that the features are scarcely distinguishable, and indeed the resultant œdema in any portion of the body attacked may be extreme.

In some cases the disorder extends to the mucous membranes, inducing conjunctivitis, redness and tumefaction of the mouth and throat, thirst, cough, nausea and vomiting; colicky pains, worse at night and aggravated by food or drink, are often experienced; there may be diarrhœa with tenesmus and bloody stools; also diuresis, bloody urine, or even retention. Even when the mucous membranes are not involved occasional rigors are apt to occur, followed by increased temperature, even as high as 103°, with delirium and more or less profuse perspiration. Rheumatoid pains are sometimes experienced through the body, particularly in the lumbar region and about the joints; also quick, hard pulse, great restlessness and depression, loss of appetite, sluggish secretions, insomnia—in fact all the phenomena which generally mark the fastigium of an acute infection. Grave

constitutional symptoms of course are not found in every case; indeed seventy-five per cent. passed to convalescence unaccompanied by serious complications.

Presenting so acute a character the malady is essentially a self-limited one and generally runs its course in from one to five weeks, dependent somewhat upon the previous condition of the patient, the severity of the attack, and the promptitude with which treatment is instituted.

Prophylaxis is of course axiomatic. Active treatment may be either local or constitutional, or both. In the majority of cases local applications will be found amply sufficient; but in more complicated ones remedies are required to correct symptoms as they occur. Where the mucous membranes are involved bismuth, salol, thymol, guaiacol carbonate, etc., may be employed. An old effervescing mixture which personally is in great favor when constitutional symptoms exist is composed of one drachm of morphine sulphate, six drachms sweet spirit of nitre, twelve drachms each of sweet mendererus and liquor potassium citrate; a dessertspoonful of this given in half a cup of water every four or five hours. This is slightly diaphoretic and diuretic as well as anodyne and sedative, and serves to control pain, soften the pulse, and keep the secretions active.

The constitutional method of treatment is so much in vogue with some practitioners that they have the habit of administering repeated small doses of tartar emetic — sufficient to keep the patient nauseated from twenty-four to forty-eight hours — claiming that thereby the attack is shortened and the frequency of general complications lessened; but my faith has never reached the stage that would permet me to copy this practice. It is rarely one is able to successfully abort this malady, though now and again a case occurs in which the characteristic dermatitis may be prevented. Many favorable features are needed, and the patient must be speedily met with after contact—not later than two hours. In such instances I employ an alkaline wash composed of two drachms of sodium carbonate to ten ounces of distilled water, followed by a mild antiseptic made by adding one drachm of boracic acid to fifteen ounces of water—or a weak astringent, say two grains of zinc sulphate to eight ounces of water. This accomplishes all that can be done in the way of abortive treatment. More commonly one is called when the malady is well advanced and when the best judgment is required in the selection of a remedy. There are vast numbers of lotions, unguents and powders advocated by various authors. For instance: Potter recommends a wash of 1-to-4000 mercuric chloride or a weak solution of chlorinated soda; H. C. Wood, an infusion of lobelia one ounce to the pint; Stelwagon, a saturated solution of boracic acid containing one to two drachms of carbolic acid per pint, followed by an application of official zinc ointment diluted to half strength with petrolatum; Couch, frequent washing with hot soap-suds and soft water; Levick, diiododithymol dusted freely over the affected surface; Burns, cotton saturated with acetate of lead two parts, chloride of ammonia four parts, in sixty-four parts of rose-water; Duhring, an aqueous solution of grindelia robusta or a decoction of white oak bark; J. Nevins Hyde, lime-water and elder-flower water, each eight ounces, to which has been added one drachm of bismuth subnitrate and one-half drachm dilute hydrocyanic acid. Some claim good results from a three-per-cent. solution of carbolic acid; from black wash; from ten-per-cent. oleate of cocaine; from an ointment of iodoform one drachm to two ounces of lanolin; from a dusting-powder of equal parts of calomel and starch; a few seem to prefer carron-oil, etc., etc.

Many of the foregoing I have never used, while others have given more or less satisfaction; I have known an ointment of equal parts of ichthyol and lanolin to act almost miraculously. I have been grievously disappointed with grindelia robusta, which has been so often recommended. Indeed, my favorite treatment is the standard remedy of the elder Gross, the old-fashioned lead-water and laudanum applied on cotton in the first twenty-four or thirty-six hours, then washed off with warm sterilized water, and an application (on strips of lint) of a paste composed of forty-five grains of zinc oxide, thirty-five grains of salicylic acid, and one ounce of starch in two ounces of lanolin; this latter should be renewed three or four times during the twenty-four hours, and as it

is sedative and cooling, serves to allay the intense itching and contributes greatly to the comfort of the patient.

Rhus poisoning fortunately becomes chronic very rarely, and then only in those predisposed to eczematous eruptions; it should then be treated as a chronic eczema.

From the multiplicity of remedies advocated, one may very readily understand that often the eruption passes through a rapid course to complete recovery without any treatment; but nevertheless occasions arise when all the remedies combined fail to have any influence. When its nature is better known it will doubtless be treated more rationally.

Ames, Iowa.

OBSERVATIONS ON INFLUENZA.*

BY E. A. EDLÉN, B.S., M.D.

It is noteworthy that contrary to the usual course of epidemics of influenza of the past, the present one covers a period of many years, and moreover does not manifest any evidence of decline in severity. Epidemics of various nature are generally more serious at the start, but this malady seems to increase in virulence every year it continues. That such is the case is probably explainable by the fact that one seizure not only favors another, but also renders the human mechanism less able to resist successfully the baneful influence of succeeding attacks. There is manifestly no disease that so completely overthrows the vital resistance without destroying life outright, or that so often disarranges the intellectual faculties, yet it is exceedingly difficult to convince the public that it is of serious nature. People in general regard it with contempt rather than awe, supposedly on the ground that in 1889 and 1890 it took the form of a severe coryza and was regarded fashionable, inasmuch as the upper classes then seemed peculiarly susceptible to it. But as nothing is *à la mode* more than one or two seasons, people feel that they are imposed upon by *la grippe*, now that it insists on reappearing every year. But it is no longer a coryza, but a complete disarrangement of the normal functional activity of the unfortunate victim, who is truly a fit subject for commiseration. It is now not a question of a few days in combating the disease and its sequelæ, but of weeks and even months ere the organism regains its normal standard.

The influenza of 1896–97 has been, and is, particularly prone to attack the nervous system. Sometimes it seems to creep into the victim at a very slow rate and the symptoms are very indefinite, being generally progressive weakness, incapacity for work, apathy, and irritability. At other times it strikes with lightning-like rapidity, and the person is in a very pitiable condition before he has been able to realize that he is ill.

The brain seems to be the organ that by preference is selected. Whether the germ lodges there, or its toxic products here show greatest activity on matter, need not be considered. It is probable that in a majority of cases the meninges are inflamed, or there is a meningeal irritation at the base of the brain and medulla. The basal ganglia and medulla are the chief seats of lesions produced, which is clearly shown by the manifestations of the vital centres.

The general toxicity of the economy causes interference with the functions of many organs, and gives rise to a considerable variety of symptoms, chiefly referable to the nervous, digestive and respiratory systems. The vaso-motor system is often profoundly influenced.

The nervous symptoms are subnormal temperature or occasionally fever, great prostration, lassitude, incapacity for exertion, neuralgic pains in various parts of the body, especially near the location of the heart, headache, dizziness, and fainting spells. The mental phenomena are fear of some overhanging calamity or of becoming insane, dread of being left alone, incoherence of thought, impairment of memory, irritability or stupor, apathy, melancholia, or delirium. The vaso-motor symptoms are: Loss of equilibrium in the regulation of circulation; cold, waxy hands and feet; hot flushes and chills; and often a few days of profuse perspiration. The pulse is generally regulated by the temperature. With subnormal temperature the heart may beat less than fifty times to the minute, while with fever more than 130. There may be palpitation or intermittency and, generally, rhythmic irregularity. The

* Read before the Iowa and Illinois Central District Medical Association.

digestive disturbances are nausea, vomiting, complete anorexia, gastric distress, and gaseous exhalations. The tongue is usually clean and moist, normal in appearance, except the opaline color, which is quite characteristic of the disease; occasionally it is coated, especially in concomitant malarial infection or in fever. The bowels are constipated at first, later diarrhœa supervenes. The respiratory symptoms, which are not at all prominent this year, are coryza, inflammation of the mucous membrane of the upper respiratory tract, especially at the naso-pharynx. The cough is sometimes very aggravating, chiefly on account of the faucial irritation; hoarseness is frequently pronounced. The functions of the liver and kidneys are more or less impaired. There may be albumen and casts in the urine, particularly in dormant pre-existing kidney disease.

In some instances the symptoms are very ill defined, while in others the diagnostic points are quite clear, as is to be expected in a disease which is so varied in its manifestations. In an epidemic a true diagnosis of these uncertain cases is not so difficult; but when sporadically met with is apt to be allowed to go untreated, or until the active symptoms have passed, when the attack is easily mistaken for neurasthenia,—a mistake quite excusable, as the symptoms are very similar. *La grippe* is in truth a nervous prostration. I think no other single malady is ever responsible for so great a percentage of mental aberration and neurasthenia. Heart disease, predominantly functional, is also a frequent sequel, but it is usually associated with general neurasthenic symptoms. Chronic catarrh of the respiratory, the digestive, as well as of the genito-urinary tract often follows, usually of a very intractable character.

The evil after-effects are less pronounced in children than in grown people, and the young generally recover much more rapidly. Although the death-rate is small, except in the aged, the disease is indirectly responsible for many deaths not alone because of its deleterious action on the system as a whole, but also by rendering it more susceptible and less resisting to the inroads of other diseases.

Rest is the prime factor in treatment; it is so essential that those who disregard it at the outset soon find to their sorrow that they have committed a glaring error, being either compelled to take to bed later on, or else seem unable to shake off the bad effects. A person who can be induced to enjoy complete rest of mind and body on the appearance of the primary symptoms generally escapes a long siege and the aggravating sequelæ, while one trying to ignore the presence of the malady will frequently lay the foundation for mental retrogression and chronic ailments of one or several organs.

As yet the profession is groping in the dark as to means of certain prevention. As the malady is more prevalent during autumn and winter, when the mucous lining of the upper air passages is more hyperæmic and tender, it is logical to conclude that the morbid factors are then able to manifest greater activity. Daily cleansing of the nose and throat with some antiseptic solution is practically effective both as to prevention and cure, provided it is instituted before the disease has had time to produce its peculiar pernicious effects on the nervous system. The digestive tract can also be rendered comparatively antiseptic by medium doses of quinine, which is very inimical to the germ. The reason that some observers fail to find quinine a potent drug is probably because it is not administered early enough. Creosote is another antiseptic of great value, whether used by inhalation or given by the mouth; this is especially true when the respiratory or digestive systems are predominantly attacked. Creosote and turpentine may be mixed with water, kept boiling, and the steam inhaled several times a day, or the steam allowed to mix with the air in the sick-room. Such procedure subdues the cough, allays faucial irritation, and causes a general amelioration of all the symptoms. Nitroglycerin is sometimes of value in cases where the heart is implicated.

When the nervous system is the chief sufferer, quinine and creosote are of little avail. Strychnine is valuable after the acute symptoms have subsided, but powerless against the primary explosion. When there is subnormal temperature, bradycardia, melancholia, irritability, and all the symptoms indicating profound alteration of the normal functions of the nervous centres, nerve sedatives

are most beneficial. Belladonna is also of great service, as it has a quieting soporific effect; under its influence temperature and pulse regain their normal status in a few days, and though the patient may be in a very weak condition the irritability and fears, so generally present, are allayed.

When the active symptoms have subsided tonics are generally indicated,—strychnine or nux vomica, arsenic, iron, and, if the catarrhal state of the digestive apparatus indicates, acids should be added; they may be combined with the other tonics.

In case of neuralgic pains or gastric distress gelsemium may be resorted to. Where there are rheumatic pains, the salicylates act well. Whiskey is a valuable agent, especially at the outset. In case of urinary disarrangement diuretics and diaphoretics are useful.

Nutrition should be carefully looked after: Soft boiled eggs or an egg-nog, morning and evening; milk with lime-water; beef tea—all are generally well borne. Bread and meat may be added after a few days. As a rule, it is best not to prescribe any certain diet, but let the patient choose to his own liking. The main object is to prevent great drainage on the vital stores of energy, and to restore the various organs to their normal activity.

Case 1.—Mrs. G. E——, aged 23, nervous temperament, had light attacks of influenza several seasons. At 11 P.M., January 20th, I found her very nervous, frightened, incoherent in talk; temperature 97.8°; pulse 56, respiration irregular; tongue moist and coated. Complained of cold hands and feet, insomnia, pain in the head, neck, and heart radiating toward the left arm; extremely weak, very restless, dizzy, and faint; chills and hot flushes; anorexia; constipated, but free from nausea and vomiting. Had been ailing for some time, feeling better every other day, but her symptoms had grown suddenly worse. The case was undoubtedly one of influenza with concomitant malarial infection. I prescribed quinine and strychnine, advised her to take an egg-nog, morning and evening, and milk; hot applications to her feet and legs.

January 21st, she was feeling worse, very restless, and tossing about in bed; temperature 97.4°; pulse 50. Prescribed a sedative mixture.

January 22d. Had slept some; felt comfortable, except for her weakness, dizziness, and pain in the heart; temperature 98°; pulse 60.

January 23d. Had slept better; temperature and pulse normal; had a few chills and flushes; hands and feet still cold and skin dry; nervous symptoms improved.

January 24th. Had slept well during the night. Began to regain her memory; was rational in her talk. Temperature 99.8°; pulse 100; perspiring profusely, and did not complain of cold extremities; coughed some and complained about tight feeling in chest; rough breathing and some moist râles at the apex of left lung. Ordered creosote and guaiacol, six and three drops respectively, three times a day.

January 26th. All nervous symptoms were greatly subdued except dizziness on rising; lung and heart symptoms were improved; temperature normal; pulse 80.

January 28th. Found her sitting up and feeling stronger; cough light, but the lungs still weak; temperature and pulse normal; breathing regular; tongue still coated. Quinine, creosote and guaiacol continued, and a tonic prescribed.

Two weeks later she was practically well, except the chronic malarial taint.

Case 2.—January 28th was called to Mrs. Z——, aged 31; nervous, high strung. Temperature 97.5°; pulse 54; had been feeling badly and growing continually worse for several days, but was averse to going to bed or calling in medical aid; complained of cold hands and feet, chills and hot flushes; headache, præcordial pains, and extreme weakness of mind and body; memory was poor, and she expressed a fear of becoming insane; tongue was moist, clean, and of opaline color; no appetite; nausea, vomiting, and constipation. Her aspect was that of a person in abject misery; she had lost all interest in her family and surroundings; was melancholic, hysterical, and irritable. I advised her to remain in bed for a week and prescribed nervous sedatives, and gave her a laxative of calomel and soda.

January 29th she was feeling better; had slept some during the night; temperature 98°; pulse 60.

January 31st, found her improving.

Two days later temperature was normal; pulse 68; nervous phenomena fading, but she was very weak and unable to exert herself, which she had tried to do against advice. I ordered tonics and extract of malt. In a week she was able to leave the bed, and in three weeks later her health was quite good.

Case 3.—Mrs. G. N——, aged 35, stout, robust-looking woman; had been in excellent health though subject to occasional headaches; last summer suffered from neuras-

thenia, a sequence of a former attack of influenza. January 26th I found her completely prostrated, and learned she had performed her usual household duties, but in the afternoon complained of feeling tired. At 7 P.M. she fainted and remained unconscious fifteen minutes, when she awoke and was soon seized with a severe chill. In a short time she became senseless again and had revived shortly before my arrival, at which time she had another chill. Hands and feet cold and numb; temperature 97°; pulse 42, regular, but weak; breathing regular; had a frightened look and mind was wandering; afraid of being left alone, and wondered if she was insane; said her head felt empty, and that she experienced sinking sensations.

Ordered hot applications to her lower extremities and administered hot whiskey; also a sedative and quinine.

Next morning I found her somewhat more composed, though mind was still wandering; occasionally would ask if she did not talk foolishly. Had several chills and alternate hot flushes during the night; had slept some; was extremely exhausted and unable to exert herself; still complained of sinking spells and cold extremities, stiff neck, and headache; temperature 97.5°; pulse 50; tongue clean, moist, and distinctly opaline; nausea and gastric distress; pain in the region of the heart, but this organ was every way normal; urine normal also; no ocular symptoms. Same treatment continued with strychnine; also egg-nogs morning and evening, and milk with lime-water.

January 28th she was somewhat improved; had one fainting spell during the night; complained of neuralgic pains in various parts of the body, and lack of appetite; irritable and melancholic, but more rational than before; temperature 98°; pulse 54.

January 29th she was manifestly improving; wanted to be left alone and felt more at ease when undisturbed.

January 30th, slightly improved, and began to perspire profusely.

January 31st, the perspiration still profuse and annoying; temperature normal; pulse 60; extremities warm; pains more easy; no appetite.

February 1st, temperature 99.5°; pulse 65; sinking spells and dizziness.

February 2d, temperature normal; pulse 65; felt more easy; rational; still had some fear of becoming insane; perspiration abating.

February 5th, the nervous symptoms greatly allayed, but still weak and dizzy on rising; tonics prescribed.

February 11th she was still very weak, but manifested some appetite. Improvement was slow, but she recovered after several weeks lingering.

Case 4.—F. L——, telegraph inspector, aged 45, a strong, robust man weighing 200 pounds, on February 25th complained of loss of appetite, extreme prostration, impairment of memory, incapacity in performing mental work, insomnia, headache, tight feeling in the chest, irritability of the throat, cough, and hoarseness; had been growing continually weaker for a month, and the symptoms were increasing in severity; but he would not quit his work, and tried to battle against the disease the best he could. Temperature 98°; pulse 68; tongue clean and moist; throat very angry looking, especially the epiglottis and vocal cords. I sprayed the nose and throat with an antiseptic solution and applied a strong solution of silver nitrate, also spray of menthol, cocaine, and camphor; also prescribed a calomel and soda laxative, a cough mixture, and creosote and turpentine inhalations. He was advised to rest for a week. March 2d he was completely prostrated, faint, and dizzy; had traveled several miles the day before; coughed a great deal; throat was very irritable; temperature 97.2°; pulse 44; cold extremities, chills, and flushes; severe headache and stiff neck. I advised him to stay in bed and renounce all ideas of mental and physical exertion for a week at least; ordered same treatment continued and added quinine and strychnine, egg-nogs, and milk with lime water.

March 4th he felt somewhat better, but was unable to leave bed and not averse to remaining there.

March 7th he exhibited evidence of improvement, except as to throat symptoms, which were still aggravating because he had neglected the inhalations ordered.

March 11th he called at office for treatment of throat; was still very weak; appetite returning.

He continued for a few days to take treatment for the catarrhal condition of his throat, with good effects. His hoarseness cleared up and the faucial irritation was allayed. The case progressed favorably but slowly toward recovery.

In the first three cases the nervous system was chiefly attacked; especially so in *Case 3*, where the nervous phenomena were exceedingly prominent previous to any other manifestations. *Case 4* emphasizes the necessity of rest and proper treatment at the appearance of the disease in order to avoid the

grave phases of it. It will also be noted that the nerve sedatives are the proper agents to employ when the nervous centres are predominantly invaded, as seen in the failure in *Case 1* to subdue the nervous manifestations by other therapeutic measures.

Moline, Illinois.

Clinical Reports.

DIPHTHERIA CASES: NEURITIC COLIC (?).

BY W. STUART LEECH, M.D.

Case 1.—A girl 18 years of age called at my office complaining of sore throat, and I found several diphtheritic patches on the left tonsil; right tonsil red and swollen. Temperature 103°; tongue coated; headache; anorexia; thick saliva; constipation; aching of limbs and back; painful deglutition and general *malaise*. I gave her the regular diphtheritic treatment laid down by Hughes, governing myself by general principles. The patient persisted in going out in the cold. Within three days membrane disappeared, menstruation set in, and apparently a bad septic infection was present. The following day, during my absence, a Norwegian physician was called in who treated her for typhoid fever. It is hardly necessary to state that the patient died.

Case 2.—On January 29th, 1897, I was called twelve miles in the country to see a family suffering from "throat troubles." I found the father holding a child on his knees, which died a few minutes after I arrived. They had lost a ten-year-old girl the day before of the same trouble. No physician had been in attendance. I found throat of the mother (a Norwegian aged 38) as well as pharynx, uvula and both tonsils frosted over with a cream-colored exudate; she was covered with perspiration and in a state of complete prostration. I gave a three-grain dose of calomel and ordered her to take one three-grain tablet of quinine every hour until eight were taken. In conjunction with this I swabbed out the throat and had her use a gargle composed of carbolic acid, elixir vitriol, tincture iron, and glycerin, suitably diluted with water.

Case 3 was the nine-months-old child of the foregoing; tonsils, pharynx and larynx had reached such a stage that treatment availed nothing.

Case 4 was the eight-year-old sister of No. 3; both tonsils were covered with the exudate, accompanied with the usual symptoms. Same treatment (modified) given as in case No. 2.

Case 5 was the thirteen-year-old sister of Nos. 3 and 4, with like symptoms and similar treatment.

Cases 2, 4, 5, and likewise two domestics, made a ready recovery within three days. The family were quarantined and the premises thoroughly disinfected with chloride of lime. As there was a public school within a few rods of the house it was ordered closed. After a lapse of ten days no other cases had appeared in the neighborhood.

Case 8.—This was a strong, healthy Irish-American who presented the usual symptoms. He was given the same treatment as in Case 2 *et al.*, and recovered within twenty-four hours. I had no antitoxin, or would have given it a trial.

There have been four epidemics of diphtheria here during the last three years, and in each instance the weather was somewhat cloudy, the thermometer ranging between 28° and 34° F., with a constant appearance of frosty-looking ice on the straw and bushes. Extreme cold seems to cause the disappearance of diphtheria in every instance, therefore I query as to whether there may be a relationship between frosty bushes and frosty throat.

Case 9.—H. J——, American, aged 23, sanguino-nervous temperament, was suffering with neuralgia of the uterus. In the course of treatment I gave a hypodermatic of morphine and atropine, and in inserting the needle and throwing out the solution I exercised the usual amount of diligence. I have always aimed to make this operation painless, and so it was in this case until about a minute after the needle was withdrawn, when the patient was seized with an overwhelming disturbance: She was the very picture of fright; threw up her hands and called repeatedly for water; kicked her feet to and fro; fanned her face; beat upon her breast and threw her hands to the top of her head in the most intense agony; perspiration poured from every pore; pupils and eyelids dilated; mouth and throat became dry; pulse regular and quick. I gave her a dessertspoonful of aromatic spirits of ammonia, dashed cold water on the head and down the back, when, within ten minutes, all of the symptoms subsided and the neuralgic pain coincidently disappeared.

She declared that during the attack she felt as though ten thousand needles were piercing every inch of her body; everything within the abdomen appeared on fire; the scalp, top and frontal portion of the head burned as if rubbed with a red-hot iron; the thirst and suffocation were "terrible," the neuralgic pain increased its power and took possession of every nerve in the body; finally she would "rather die than go through such torture the second time." No bad effects remained.

I have given perhaps five thousand hypodermatic injections of various drugs and have had this experience three times.

Inasmuch as I always exercised the utmost care in expelling all air, in the use of pure drugs and pure solutions, what brought on this overwhelming condition? I am at loss to decide, but think it was a colic of the sensory nervous system. Still, three theories are plausible: First, the unavoidable injection of air into a minute vein, thereby shocking the system through the solar plexus; second, the system is shocked by the too rapid absorption of the medicine; third, the needle or some toxic agent strikes a nerve or enters the system and by its chemical or mechanical virtue produces a condition which may be denominated neuritic (nerve) colic. Although I am unable to find such a disease as neuritic colic recorded, I am strongly inclined to believe there should be such a one in our nomenclature. The injection of air does not satisfactorily account for all of the symptoms. Besides these three cases I recount one that is nearly parallel: A young man, 18 years of age, light hair and nervous temperament, accidentally ran a pin underneath his fingernail, when the same overwhelming symptoms came on, and ended with a like recovery. Thus only three of the cases were female, and in one of the latter there was a slight recurrence of the attack on the following day.

Using these four as a basis, and granting that they were cases of neuritic colic, one would thus define and describe the disease as: A paroxysmal pain of the whole body characterized by the most intense burning and radiating pain imaginable, of sudden onset, with an overwhelming condition of the patient. The female sex, nervous temperament, morphine subjects, and excesses, are predisposing factors, and it arises from piercing of the body with a sharp instrument, aided perhaps by the presence of some toxic agent. The only premonitory symptom is a numbness darting over the legs and arms with a duration of thirty seconds. Following the numbness is a sudden pain and burning in the temples first, then the top of head, rushing to and fro from the head with lightning speed to the tips of the fingers and toes, with a still increasing intensity in the temples and the top of the head. Patient dances, throws the hands in every direction, especially the top of the head; calls for water or any liquid near; countenance depicts terror; there is fear of death; pores of the skin open; eyelids and pupils dilated, and eyelids refuse to wink; hands clammy; a feeling as though needles were piercing every part of the body; urine pale and voided as soon as pain subsides; pulse regular and quick. The duration is from two minutes to several hours, and attacks may recur for three days.

A sudden blow or thump felt by the patient, in the region of the heart with little or no pain, irregular heart action, will serve to distinguish neuritic colic from the symptoms arising from injected air. The neuralgia is confined generally to one locality and of longer duration. The treatment is by cold water, the sitting posture, self-composure, quick massage, stimulants, sedatives, tonics, electricity.

Brooten, Minnesota.

X-RAYS AND CALCULI.

Roentgen rays render no aid in diagnosis of renal and biliary calculi by reason of interposition of ribs, proximity of kidney to vertebral column, depth of cavity, and thickness of overlying tissues. Reproductions of shadowgraphs show the effects of the rays on the various salts composing the calculi after removal from the body. The lime salts of thin sections offer greater resistance, and show darker in the shadowgraph than do the thicker sections which are composed of uric acid and urates entirely. Also, the rays seem to find a greater difficulty in passing through the two media when one is superimposed directly upon the other, than when passing through either the lime salts or the urates separately. It is a question if calculi composed of uric acid and the urates and biliary calculi would cast any appreciable shadow when acted upon by rays strong enough to pass through the thickness of the renal or hepatic areas of the body. But with calculi composed of oxalate of lime or mixed phosphates this doubt does not apply, because these salts leave a deeper shadow than bone. From this comparison it is deduced that the shadow cast by the skeleton is due to the lime salts in the bones. Shadowgraphs of a rib and a decalcified rib were made under like conditions of exposure, etc. The former left a deep shadow, the latter scarcely any.—*Massachusetts Medical Journal.*

THE MEDICAL AGE.

A SEMI-MONTHLY REVIEW OF MEDICINE.

—PUBLISHED BY—

GEO. S. DAVIS, Medical Publisher, Box 470.

All communications regarding papers, reports, etc., should be addressed to the Editor of the MEDICAL AGE, P. O. Box 470, Detroit, Mich.

Matters relating to advertising space, etc., to be addressed to the publisher, Geo. S. Davis, Box 470, Detroit, Mich.

The editor cannot engage to return rejected manuscripts or to correspond with the writers thereof, unless such are accompanied by sufficient postage.

DETROIT, MICH., MAY 25th, 1897.

Editorial.

THE CLERICS AND THE DOCTORS.

At the session of the Michigan State Medical Society just closed, a resolution was introduced antagonistic to rendering free medical services to clergymen and their families. This was by the introducer permitted to lapse on the fact being pointed out that the Code of Ethics recognizes no class or quality as entitled to free medical services except active members of the medical profession and their immediate families.

Nevertheless, the resolution aroused the wrath of certain of the clergy, who are now busily engaged in airing their pauper instincts in the lay and religious press and hurling anathemas at the "infidel" doctors; and notably the denunciatory epistles emanate chiefly from those affiliated with denominations that possess an unenviable reputation for ignorance, intolerance, and a proud assumption of a right to be everlasting beneficiaries, to the exclusion of all the world beside.

During thirty years of medical experience the writer has never found any educated and reputable member of the clerical body who made any pretentions to gentility, willing to receive any form of medical or other service that would carry with it the brand of pauperism. The dignity of the clerical calling, the example clerics are supposed to set before their flocks for the reputation of the body at large, demands that they conduct themselves in a manner to invite the least adverse criticism; and to do this they must meet their obligations toward other professions and their fellow men as promptly as — or even more so than—in any other calling.

Again, in proportion to the services rendered to individuals or to Society at large, the clerics are invariably better paid than physicians, and further are under no such expense as the latter in fitting for their calling, or supporting the same when actively engaged therein. And the axiom that "whatever is worth having is likewise worth paying for" is equally binding in every walk of life. Consequently there is no valid reason, moral or otherwise, why the medical man should give his services gratuitously to the clergyman or his family more than to his bootmaker and his family, and these gentry would respectively feel highly insulted if called upon to marry the physician's son or daughter or to shoe them *in perpetuo* without reward.

The members of the clergy who are so anxious to be enrolled in the great army of paupers are invariably the most exacting of the physician's clients, the least appreciating of favors conferred, the first to run after and uphold the peripatetic charlatan, most ready to puff any form of nostrum (for a consideration); and when they do not receive the most servile and slavish attention—such as no paying patient would ever dream of—these "holy men," who in their own eyes cannot do wrong, are always ready to whine and find fault, even prone to indulge in vituperation and abuse behind the medical attendant's back. Such represent the *trade* wing of the clerics: they don the livery of heaven the more readily to serve the devil and their own super-selfish ends; with them the pulpit and the black coat are the means of securing an easy existence with a minimum expenditure of labor; and few could by any possibility secure half the financial emolument they now receive. The banner under which they serve is emblazoned in large letters with I. H. S, but far from representing the character and teachings given to the world nineteen hundred years ago, stands merely for Ignorance, Hypocrisy, and Superstition! It is these Peter Mullens of the profession—the leeches and parasites of the cloth—that demand free medical service and that also are the foremost supporters of all forms of quackery. They jump from the sloughs of ignorance, bigotry, and intolerance, landing with a single bound in the pulpit: they deem a black coat, pharisaical habit, and the arti-

ficial speech so aptly denominated "the holy voice," properties sufficient to excuse them from any form of education, honor, or gentility. It is the old story of the ass masquerading in the lion's skin, and brayingly demanding the reverence that is due the simon pure.

The true clergyman, no matter what his denomination or belief, must needs be a gentleman in the fullest acceptation of the word; and such never enacts the rôle of the pious mendicant, or that of the religious footpad with his demand of "stand and deliver!" The true cleric is not greatly in evidence in these days, simply because ignorance begets ignorance and consorts with ignorance, and the belief among the masses is yet prominent that "The Lord eddicates his preachers jest as he wants them to be eddicated!"—a belief, we are sorry to say, that is only too often made to do duty in the ranks of medicine.

It has become quite the fashion in medical journalism to abuse the clerics as a body as the fosterers of all sorts of charlatanism and the supporters of nostrums, and there is a measure of reason therefor. But the true cleric is never a quack, any more than the true physician a charlatan. It is unfortunate that in both professions, as in most walks of life, it is the evil that is most apparent, and the scum that presents itself first to the eye. Quack clergymen are like quack doctors, and they will be found consorting; they both receive equal support and credence from the ignorant laity. It is not therefore just to judge either cloth as a whole by its charlatans. It is the quack clergyman that calls the quack doctor, and when forced to call in the reputable practitioner, the jealousy inborn of ignorance prompts him to evade the responsibility of the bill.

The true clergyman abhors all pauper acts, and invariably lives up to the text that insists the "laborer is worthy of his hire."

By the way, has the Roman Catholic clergyman, no matter how poor or humble his condition, or small his emoluments, ever been found trying, or even willing, to evade his obligations to the medical man? If so, we have never encountered him; and the same is in great measure true of the Lutheran clergy.

***

In a measure *á propos* of the foregoing is the recent utterance of the Right Reverend Bishop of Norwalk (England), who after pointing out that the majority of humanity, clergymen and laity alike, neglect the payment of physicians' fees, continued:

> In my Master's name I entreat you to remember that true medical men are the highest type of their class in the world; they are entrusted with the secrets of domestic life; they have all our liabilities of their order; they frequently die as martyrs to science, to suffering, to sympathy, to destitution. Believing this, my plea is that every unpaid medical bill be discharged generously, gratefully, cheerfully, and that whatever account must be deferred in payment, the last to be deferred is the account of him who is the human agent who has brought us into the world, enables us to continue our work in life, and many a time lays down his own in endeavoring to baffle death.

EXPECTORATION AND TUBERCULOSIS.

"Is spitting a crime?" queries an exchange. Not that any one ever heard of, except in the blatant lucubrations of those callow members of the profession who, eager for notoriety, rake heaven and earth for excuses to place their names before the public.

The expectorating habit is incomparably nasty—especially so when practiced in street-cars and other public vehicles, or employed to filthify floors and footwalks; but it does not bring one tithe the danger to the community at large that obtains to the acceptation and toleration of other habits, perhaps fully as nauseating and disagreeable. It is still permitted for street and other railway companies to pack their cars with from twice to ten times the number of miscellaneous humanity they were intended to accommodate, there to breathe over and over an atmosphere polluted by the exhalations of both the ill and the strong, the washed and the unwashed; there is hardly a hall, church or theatre that is in any sense ventilated; not a house or building of any kind is ever so erected that it will carry off the products resulting from the combustion of either natural or illuminating gas; whole blocks with outside privies and reeking vaults cleaned at most but once a year still exist in all our large cities; the feather bed, which is never cleansed, exists in two-thirds of the houses; the odors of rendering-vats, tanneries, sewers, etc., receive the most scant attention; smoking chim-

neys are rarely if ever interfered with; sleeping- and palace-cars are permitted to foster vermin; the smoking habit in many cities renders the street-car an unfit place for any cleanly person, and the crowding of street-car platforms is more likely to result in contagious disease than all the expectoration that can take place thereon.—All of these are far more dangerous than the spitting habit, and yet they attract little or no attention.

Really, has all the nonsense that has accrued to tuberculosis during the last decade in the least lessened the number of cases or mitigated the course of the disease? Not at all. Consumption still continues, and will ever obtain so long as "advanced views" prevail, both regarding the management of the malady and of the demands of civilization. On the contrary, consumption is constantly increasing the number of its victims, not because it is contagious—for it is not; not because it is infectious—for even this is doubtful except in rare and isolated instances; but because the habits of life inculcated by so-called advancing civilization tend to prepare more fertile soils for the germ. Guinea-pigs under abnormal and unhealthy methods of life may be made to develop a malady that is held to be tuberculosis with the greatest of ease—they are the most susceptible of all the creatures used by man for experimental purposes; but this proves nothing as regards anything but the "pig" and the experimenter. In fact, would-be pathologists place the cart before the horse, and while advocating prophylaxis *et al.*, attack everything but the real factor—improper methods of living, including crowded tenements, late hours, careless exposure, unhealthy and indigestible food, etc. Needless to add, any enactment looking to rendering spitting a crime must needs become a dead letter before it is engrossed in the book of statutes.

What a puerile mass of rubbish filters from untutored and inexperienced minds in these days! Medical literature is swamped therewith. Medical science has become a synonym for ignorance, for guesswork, and for the exploiting and fostering of nostrums —a score of such guaranteed to cure tuberculosis have been relegated to oblivion within the past five years; but still they come.

The first need of the profession and of medical schools is the induction of common sense, instead of as now praising every will-of-the-wisp. When Nature's laws are obeyed by every one, then and then only will tuberculosis disappear; but as the human race is at present constituted there is no possibility of such consummation, and the probabilities are that consumption will hold its sway to the end of the world. Its victims are for the most part voluntary, in the sense they wilfully and knowingly disobey the commonest of Nature's laws. The mercantile side of life too is in a measure to blame, as well as the advocates of advanced womanhood. The female is more prone to tuberculosis than the male, and atop of this she nowadays seeks the employments that do not belong to her sex, chiefly clerical, and often for the purpose of securing gewgaws with which to dazzle her lovers, to excite the envy of her sisters, or perhaps in an endeavor to claim a social rank that does not pertain to her station in life. Confined to typewriter or desk, to machine, to printer's case, to the shop counter she, at a reduced rate, caters to the cupidity of her employers, sends men to the street as beggars, and thus plants in her own body the seeds that lead to an early grave. Her place in the economy of the world, which would insure health to herself and to her future offspring, remains vacant; she in consequence is condemned to diet that would ruin the digestion of an ostrich; is rendered unfit for any of the duties of womanhood; and when married brings into the world children already ripe for the fell and insidious disease.

Moral: Reform our sociology. Rather make the employment of women in places for which they are unfitted the basis of legal enactment. In other words, don't strain at the tubercular gnat while swallowing the consumptive camel.

THE PARIS CATASTROPHE.

The moral of the terrible accident that occurred in Paris, France, a fortnight since, and which plunged the whole city in mourning, is obviously the unwisdom of holding large gatherings in buildings that are not as nearly fire-proof as modern art can make them. The most elaborate measures for fighting a conflagration manifestly would

have been utterly useless in this instance, for the building was apparently as combustible as a packing-box filled with shavings. Another defect, one that is common to large buildings in this country—and most other countries for that matter—is the difficulty in the way of escape: The aisles are all too narrow; the doors too small and too few; the stairways inadequate, perhaps narrow and winding; and the means of exit too intricate. These are faults that generally pertain to most modern hotels, churches, music halls, theatres, and office buildings.

There are apparently no valid reasons, in these days, why all wood entering into the construction of buildings should not be fireproofed. The expense is not great and would be more than met by savings in insurance and otherwise. Again, no cloth or paper should be allowed in the construction of decorations of booths, etc., etc., for any form of fair or celebration which is expected to attract numbers, until both have been rendered absolutely incombustible.

DANGERS OF ELECTRICITY.

Recently, in Hampstead, England, an electric-light lineman stepped into a transformer-pit and received a fatal shock. The result led to a rigid inquiry by the authorities, with voluminous reports by experts and medical men, and the investigation threatens to result in preventive legislation. The *Electrical Journal* of Chicago says that in that city "a two-line notice with the usual funeral announcement" would have "settled the matter." Fortunately matters are different on the other side of the Atlantic, and the Briton refuses to sacrifice humanity to human progress.

EDITORIAL NOTES.

Rubbish!—

A sensational story has been started by a New York daily to the effect that Henry M. Stanley is gradually turning black—becoming a negro in fact! That his skin is already mulatto-colored and taking a deeper hue daily." It is added that "this remarkable occurrence is attributable to the transfusing of African (negro) blood into his veins on several occasions, while in the wilds, for the purpose of immunizing him against the dense miasm so prevalent in the low lands of the Dark Continent."

Scarlet Fever and Measles.—

According to Lange the poisons of scarlet fever and measles may attack a person at the same time, totally independent of each other, so that a patient while suffering from one may be infected with the other. The course of either disease will be in no-wise influenced, changed or heightened, but both will pursue a parallel course.—*Southern Medical Record.*

We have seen both measles and scarlet fever attack the same subject almost simultaneously in a few instances, but the result was not at all in consonance with the above.

Hydrophobia.—

Doctor Irving C. Rosse, of Washington, D. C., is so convinced that there is no such disease as hydrophobia that he has offered over his own signature a reward of $100 to any one producing a well-authenticated case of that disease in man or dog.

And it is hardly necessary to add the reward will never be claimed.

What was the Cause?—

A case is reported from Berlin where a physician used the diphtheria antitoxin on himself with the result that he had a large number of abscesses appear at the point of injection. No sooner would one abscess heal than another would appear, and this condition continued for some weeks.

The American Diploma Abroad.—

An English court has recently decided that an American physician with a genuine diploma from a recognized medical school is at liberty to practice medicine in Great Britain, but must not assume any titles implying that he is a registered British practitioner.

Whooping-Cough.—

An exchange notes that five to ten drops of fennel oil, twice daily, is often very effective in reducing and relieving paroxysms. This is another instance of return to an old remedy.

Items and News.

The Heart of Livingstone.—

Mr. Poulett Weatherley, who has for some years been traveling in Central Africa, recently visited the tree under which Doctor Livingstone's heart is buried at Old Chitambo. He remarks: "It is a thousand pities that some attempt has not been made by people at home, who are interested in Livingstone and his work in Africa, to prevent the exact spot where he died from being hopelessly lost sight of, as it will be in a very few years. When the poor old Mpundu tree falls through fire and decay—it is now fast becoming a mere shell—after having kept guard so faithfully all these years—a quarter of a century now—there is nothing to replace it. Nothing could possibly be more appropriate than the simple rugged tree standing over the spot; no monument could be more inexpressibly solemn; but, unfortunately, it cannot last forever. The Mpundu must go, and with it, unless prompt steps are taken, goes the knowledge of the site of Livingstone's last halting-place."—*Nature.*

The Country Doctor.—

The country doctor is the natural brake upon the profession. To his caution is due the fact that so many meretricious discoveries and inventions, at first exploited as the greatest of advances in medical science, find their true level and often sink into oblivion. He is not controlled by any institution which he must uphold, right or wrong, and has no necessity to advertise himself by the cheap claptrap used by so many who rise amid the competition of the cities. Where these talk theory he can give them experience, not, it is true, heralded through the lay press as examples of his wonderful skill, but experience that makes him quick to deal with emergencies, skilful in making the most out of the least facilities, and practical in placing first the good of the individual and not the advertising of a theory.—*Medical and Surgical Reporter.*

To Destroy Locusts.—

Doctor W. A. Soga and Mr. H. Percy Browne have recently made some very important tests of the value of certain fungus for destroying locusts. The fungus is prepared by Doctor Edington, of the Bacteriological Institute, Grahamstown, South Africa, and, judging from the experiments described in the *Cape Agricultural Journal*, great benefits may be expected to be derived. A few locusts are caught and treated with the fungus; they are then set free, and inoculate other members of the swarm, with the result that in a few days the insects die in large numbers.—*Nature.*

A Queer Tale.—

H. G. Powell, of Toomevara, was eating an apple, when a wasp which was in the core stung him on the tongue, and he died in three hours from the glossitis induced.—*Canada Medical Record.*

[Who ever saw a wasp in an apple? The insect will sting fruit, but it never burrows therein.—Ed.]

Duration of Life.—

A German statistician has calculated that of every 1000 persons 100 reach the age of seventy-five, thirty-eight the age of eighty-five, and only two reach ninety-five. In the seventeenth century, the average duration of life was only thirteen years; in the eighteenth, twenty; in this century it is thirty-six.

Death at One Hundred and Eight Years.—

Alexander Freeman, a negro, died at Sailors' Snug Harbor, Staten Island, on January 22d, at the reputed age of 108. He was a native of New York City, and there is reason to believe that the extreme age given is not an exaggeration.—*Boston Medical and Surgical Journal.*

La Grippe.—

An *Alkaloidal Clinic* correspondent says the way to cure grippe is "to destroy the parasites."

And the way to catch a bird is to rub salt on its tail.—*Homœopathic Record.*

Advanced Sexual Physiology.—

Normal, healthful sexual intercourse is no more wrong than is the performance of any other purely physical act, and it only becomes wrong when performed in the face of social law.—Bullock.

Nothing New.—

The *Times-Herald* says Commodore Vanderbilt started life "barefooted." So did everybody else.—*Sioux Falls Argus Leader.*

Good Advice.—

"Make haste to use the new remedies while they still cure," says the cynic.—*Medical Recorder.*

Book Reviews.

LIPPINCOTT'S MEDICAL DICTIONARY. By Ryland W. Green, A.B., assisted by John Ashhurst, Jr., M.D., LL.D., George A. Piersol, M.D., and Joseph P. Remington, Ph.M., F.C.S. Cloth; royal 8vo; pp. 1154. The J. B. Lippincott Co., Philadelphia and London.

This is a most complete vocabulary of the terms used in medicine and the allied sciences along with their definitions, etymology, and signification, compiled on the basis of Thomas' Medical Dictionary. It is one of the few medical lexicons that does not repel but invites consultation, being convenient in size, and arranged so comprehensively as to furnish reasonable assurance that one's search will not be fruitless; and above all it presents none of those mutilations which have sullied the pages of many other works of this character. Again, the chief value of a medical dictionary lies in its power to define terms in accurate and intelligible language, and in this particular Lippincott's Dictionary is superior to anything that has been published in modern years. In addition to the definitions, many of the more important headings have received treatment of descriptive and encyclopedic character,—thus an outline of the structure and function of important organs and tissues is given, and under each drug its action, therapeutics, official preparation, and doses; even some account is given of the symptoms, causes and treatment of diseases. The order of the terms being strictly alphabetical the greatest convenience is afforded in the matter of consultation. In the case of a phrase consisting of a noun and a qualifying adjective the definition is usually given under both. Above all the Dictionary is well cross-indexed, a desideratum that obtains in too few works of this kind.

The system employed for indicating the pronunciation is more accurate and scientific than any heretofore outlined, being based on the principles of phonetics now recognized by all modern philologists in Latin; the English has been given the preference, inasmuch as the latter generally obtains in the United States; but also for the sake of emphasizing the fact of the increase of Roman pronunciations, the latter has also been given after the English and is distinguished by the initial letter L. As a whole too great praise cannot be said for this work, which as a dictionary is a peer of the best, and for its collateral information superior to most of its rivals.

BIRD LIFE. By Frank M. Chapman. Cloth; 12mo; pp. 269. Price, $1.50. D. Appleton & Co., New York.

This is a very concise and practical guide to the study of the common birds of North America, and is illustrated with seventy-five full-page birds and numerous text drawings; and no one is more competent than Mr. Chapman to undertake such a work as this.

The author enters a special plea for the study of birds in common schools—for the more general introduction of ornithology and natural history courses; which we certainly most cordially endorse. He also realizes that popular interest must precede the desire for careful technical information, consequently the volume is addressed to those who desire a general knowledge of bird life, and some acquaintance with the commoner birds. The earlier chapters briefly define the bird, its place in nature, its relation to man, and outline the real facts in its life history. Then follow the portraits, names, etc., of upwards of one hundred familiar species inhabiting eastern North America along with such information concerning their comings and goings as will lead to their ready finding, identification, and study. Every one of the chapters is replete with interest and practical information. The colors, migration, voice, nesting seasons, etc., are simply yet fully elaborated. There is also a field key to common land and water birds; the reader is taught how to identify species; and finally the illustrations are of an order and character rarely seen even in the best books of this class. As a whole the book is a marvel, and reflects the utmost credit upon its author.

ALLBUTT'S SYSTEM OF MEDICINE. Macmillan & Co., New York.

The second volume of this System—this enumeration does not include Playfair's Gynæcology—is announced by the publishers. The contents of the eagerly looked for volume include "Infectious Diseases of Chronic Course"—tuberculosis and leprosy; "Diseases of Uncertain Bacteriology"—measles, scarlatina, smallpox, pertussis, typhus fever, yellow fever, dysentery; "Infective Diseases Communicable from Animals to Man;" "Diseases Due to Protozoid." The volume closes finally with special papers on "Intoxications," including poisonings of various kinds, alcoholism, internal parasites, etc.

Among the notable contributors we discover the names of Osler of Baltimore, Ernest Hart of the *British Medical Journal*, Doctor Lafleur of Montreal, Macloud of Calcutta, Martin of Melbourne, and G. Sims Woodhead of London.

Manifestly no means have been spared to make the work the best of its kind. Another notable book emanating from the same house is "Constipation of Adults and Children," by H. Illoway, a full review of which we hope to give later.

TELEPATHY AND THE SUBLIMINAL SELF. By R. Osgood Mason, A.M., M.D. Cloth; 12mo; pp. 343. Price, $1.50. Henry Holt & Co., New York.

This is a volume of great and direct value to every medical man who is at all interested in the so-called "new psychology," inasmuch as it is a very complete and concise account of recent investigations regarding hypnotism, automatism,

dreams, clairvoyance, phantasms and related phenomena. All these subjects are carefully stated and discussed, and in the majority of instances fair and reasonable answers given to the queries that are suggested. In fact the author has endeavored to aid in the efforts now being made to rescue from an uncertain and unreasoning supernaturalism some of the most interesting and beautiful psychical phenomena in human experience. The twelve chapters are replete with matters of interest, and though prepared for the laity as well as for medical men, they lose nothing in value as regards the latter.

We cordially recommend the book to every individual in the least interested in the topics discussed.

The Little Lady Lagunitas. By Richard Henry Savage. Paper; 16mo; pp. 482. Rand, McNally & Co., Chicago and New York.

This is the initial number of the new Oriental Library which this house is putting forth. It has the special advantage that it may be subscribed for by the year at the rate of $13, one book per week being issued.

This volume deals with early times in California, the principal point being the plot of a lawyer to rob his ward of her immense patrimony. The tale is very clever except for the fact in the early portion the author indulges far too much in moralizations regarding the past and speculations as to the future—in fact, he seems to be anxious to exhibit his knowledge of California in civil war history—neither of which is at all essential to the tale.

Wonderland—'97. By Olin D. Wheeler. Paper; 4to; pp. 105. Published by Northern Pacific Railway, St. Paul.

This beautiful little volume, which is nice enough to lie upon one's drawing-room table, is truly a work of art. It presents a story of the Northwest, in which is given some account of its history, forests, mountains, fishing, parks, mining, agriculture, grazing, cities, and general scenery as found along the line of the Northern Pacific Railway. Such illustrations as are presented have never been seen before in any work devoted to advertising, and Mr. Charles S. Fee is to be congratulated upon the artistic elegance with which the book is gotten up, and upon the facile pen of the author selected to prepare the text therefor.

Devil's Dice. By William Le Queux. Cloth; 12mo; pp. 291. Price, $1.00. Rand, McNally & Co., Chicago and New York.

A thrilling story of crime with a streak of anarchism, the plot of which is located for the most part in London, and wherein the friendship of a man for the sister of his fiancée is sufficient for him to carry upon his own shoulders for a long time the burden of a crime he never committed. An attempt to outline the plot would be to spoil the volume for the reader. It is one of the few books of which the key is kept carefully hidden until the crisis is fairly announced. It is well deserving of a host of readers.

The Eye of the Sun. By Edward S. Ellis. Cloth; 12mo; pp. 298. Price, $1.25. Rand, McNally & Co., Chicago and New York.

This is a tale of the career of a gentleman possessed of a diamond of phenomenal size known as The Eye of the Sun, which mysteriously disappears, its place being occupied by a paste imitation. Every effort is made to recover it, and when success seems at hand it is found a second paste diamond has unaccountably cropped up. It deals with a voyage across the Atlantic, with train robberies, with detective experiences, etc., etc. The finale is utterly unlike anything that could be imagined up to the very moment it is sprung upon the reader.

Delilah of Harlem. By Richard Henry Savage. Paper; 12mo; pp. 329. Price, 25 cents. Rand, McNally & Co., Chicago and New York.

This is another of the Oriental Library, and if anything is superior to the issues preceding it. The tale, though an every-day one of the ruin wrought by a handsome and scheming adventuress, is unusual in its plots and in its scenes, as it covers not only the City of New York and State of Colorado, but Central America, Europe, and Egypt. It will be found of thrilling interest from title-page to finis.

Pocket Medical Dictionary of To-day. By William R. Warner. Imitation morocco; 24mo; pp. 304. Price, 75 cents. William R. Warner & Co., Philadelphia.

This purports to comprise the pronunciation and definition of eleven thousand official words and terms used in medicine and associate sciences. It is simply a compilation, but nevertheless is a very complete list of medical terms as in vogue at this date.

Littell's Living Age. Price, 15 cents; $6.00 per year. The Living Age Co., Boston.

This journal with its fifty-fourth year appears to have entered upon a new career of prosperity and popularity, which doubtless is in part due to the opening of new departments which enable it to cover a much wider field than hitherto. Its translations bring its readers into close touch with the leaders of thought and action of Continental Europe, while in its Monthly Supplement selections are given from new books as well as a list of the "Books of the Month." The gain in quantity is shown by the addition of eighty-eight pages in the first quarterly volume of this year. This alone promises an addition for the year sufficient to make a good sized volume in itself, viz., 352 pages. Of the quality of the contents it is safe to say that the *Living Age* well maintains its high standard—it could not do more.

Of the more notable articles which have appeared in recent issues may be mentioned "The Mission of Tennyson," by W. S. Lilly; "Henry Drummond," by W. Robertson Nicoll; "Fathers of Literary Impressionists;" "Gibbon's Autobiography," by Leslie Stephen; "France and Russia in China," by Holt S. Hallett; "Herbert Spencer and Lord Salisbury on Evolution," by the Duke of Argyle; "A Day of Celebration," by Walter Besant.

"In Kedar's Tents," a serial, by Henry Seton Merriman, author of "The Sowers," reaches its twelfth chapter in the issue of May 8, No. 2757, which is also the Supplement number, giving, in addition to the regular sixty-four pages, twenty-four others containing eight selections from American magazines, four readings from New Books, and a list of the Books of the Month.

THE AUK. Price, 75 cents; $3.00 per year. L. S. Foster, New York.

The April number of this valuable quarterly journal of ornithology is before us, and presents as usual an interesting list of papers. "The Spring Plumage of the Bobolink, with Remarks, 'Color-change' and Moulting," is by Arthur P. Chadbourne, M.D.; further remarks on the same are by one of the editors, Mr. Frank M. Chapman; "Descriptions of Ten New Species of Birds Discovered by W. L. Abbott in the Kilimanjaro Region of East Africa" is by Charles W. Richmond; "New Birds from the Islands and Peninsula of Lower California," by A. W. Anthony; "A Preliminary List of the Birds of Okanogan County, Washington," by W. L. Dawson; "Description of a New Pine Grosbeak from California," by W. W. Price; "Critical Remarks on *Cistothorus palustris* (Wilson) and its Western Allies," by Harry C. Oberholser; "The Unusual Occurrence of Brünnich's Murre (*Uria lomvia*) Far Inland, with Notes on Other Rare Birds," by A. W. Butler; "Description of a New Species of Guillemot from the Kuril Islands," by Leonhard Stejneger. There are the usual Notes, Recent Literature, Correspondence, etc. We note a very interesting obituary of the late Major Charles E. Bendire, and a more than ordinarily interesting note by Olive Thorne Miller on "Captive Wild Birds."

No person interested in ornithology should be without this publication, the editors of which are Doctor J. A. Allen and Mr. F. M. Chapman, both well and favorably known in all parts of the globe as enthusiastic and competent naturalists.

THE AMERICAN NATURALIST. Price, 35 cents; $4.00 per year. The Edwards & Docker Co., Philadelphia.

The issue for May contains: "The Optic Lobes of the Bee's Brain in the Light of Recent Neurological Methods," by F. C. Kenyon; "Some Notes on the Flora and Fauna of Mammoth Cave, Kentucky," by R. Ellsworth Call; "Methods in Economic Ornithology, with Special Reference to the Catbird," by S. D. Judd; "Doctor Alex. Goette on the Development of the Vertebral Columns," by O. P. Hay; "The Seventh Session of the International Geological Congress" and "In Memoriam, E. D. Cope," by Persifor Frazer; "Obituary Notice of E. D. Cope," by J. S. Kingsley; "Recent Literature" and "Recent Books and Pamphlets." There are also General Notes on Petrography, Botany, Vegetable Physiology, Zoology, Entomology, Embryology, Psychology, Microscopy, and "Proceedings of Scientific Societies" and "Scientific News."

DONAHOE'S MAGAZINE. Price, 25 cents; $2.00 per year. Donahoe Magazine Company, Boston.

In the May issue J. J. Sharkett writes of "Irish Cottage Industries;" "Cherryside," A Memorial Sketch, is by Gertrude Reynolds; "The Song of the Lark," by P. B. Mellish; "James O'Neill and His Company," by Mary F. Nixon; "A Tale of the Desert," by J. T. Connor; "Tom, The Cornishman," by Susan I. Emery; "St. Patrick, His Life, Legends and Miracles," by P. J. Lynch; "People in Print," by William Hopkins; "A Mother's Hate," by Harlow Howe; "Patsy Boy" (continued), by Mary Markwell. There are the usual departments, a Symposium on the Dingley Bill, and the usual poetry.

ARCHITECTURE AND BUILDING. Price, 10 cents; $4.00 per year. William T. Comstock, New York.

The May 15th number contains: "New Building Law Requirements;" "The Plans for the New Hall of Records, New York;" "Editorial Notes and Comments;" "Recent Boston Architecture;" "In Streets and Papers;" "The Advancement of Architecture: With Some Remarks on the Study of Gothic" (v); "Memorial Scholarship in Architecture;" "Samuel P. Avery Testimonial;" "Law Limiting the Height of Dwelling Houses in the City of New York;" "A Competition Agreement;" "Correspondence;" "Societies;" "Personal;" "Industrial Progress."

VICK'S MAGAZINE. Price, 5 cents; 50 cents per year. Vick Publishing Co., Rochester, N. Y.

Among the notable papers in the May issue are: "The Plumed Hydrangea in Mass;" "Our Winter Birds;" "Flower Beds on the Lawn;" "A New Climbing Polygonum;" "The Riddle of the Crythroniums;" "Ornamental Asparagus;" "The Strawberry Weevil;" "Miniature Chrysanthemums;" "Seed Pods;" "The Dandelion;" "Spring and Summer in My Garden;" "Floral Decoration of Bicycles;" "The Polyantha Rose." There are the usual Notes, Letter Box, Editorials, etc.

THE METAPHYSICAL MAGAZINE. Price, 25 cents; $2.50 per year. Metaphysical Publishing Co., New York.

The principal papers for May are: "Seership and Revelation," by Alexander Wilder; "Potential Energy," by George M. Fortune; "Hermes Trismegistus and Being," by C. H. A. Bjerregaard; "Making all Things New," by Henry Wood; "Transcendental Time and Immortality," by A. L. Markle; "Kindergarten Method of Instruction," by A. W. Baldwin; "The Uses of Prayer," by A. B. Scofield. There are the usual departments.

THE DECORATOR AND FURNISHER. Price, 20 cents; $2.00 per year. The Art Trades Publishing and Furnishing Co., New York.

The May issue contains: "Articles of General Interest;" "Of Interest to Women;" "Sculptor Lindstrom and His Work;" "Some St. Louis Homes;" "Colonial Ceiling and Frieze;" "Wall Painting;" "Awards in the Second Prize Competition;" "Leaves from the Editor's Scrap-Book" (XII); "Decorative Notes;" "Color, the Principal Factor in Home Decoration;" "Design for Venetian Bent Iron Candlestick."

Therapeutic Brevities.

Indian Hemp Poisoning.—October 10th for H. M——, aged twenty-three, a mixture containing Indian hemp was prescribed in combination with strychnine and quinine. This was taken regularly thrice a day up to November 3d, and without any untoward symptoms beyond a feeling of drowsiness after the first few doses. November 3d he took his usual dose (which happened to be the last in the bottle), and a few minutes afterward his face became very pale, and he "wanted more air." As I happened to be in the house at the time I was able to watch the subsequent symptoms. He said he felt he was mad, that he could see and hear me one minute and then the next minute I had gone. I walked him out into the fresh air, and gave chloric ether and sal volatile. He recovered sufficiently to say he felt well again and would go indoors. After remaining there a few miuutes the previous symptoms were repeated, but with the addition of a distressing sense of impending death. His pulse was 128 and very feeble; tongue dry and covered with a thick whitish-brown fur; he complained of tongue swelling and jaw being fixed. His hallucinations were frequent and far from the pleasant ones recorded in the text-books after small doses of Indian hemp. He further became suicidally inclined, but was easily restrained.

After a very restless night he awoke in the morning with a very vivid recollection of what he had gone through. The treatment adopted was keeping him awake, applying hot bottles to feet, administering hot strong coffee, the stimulant draught before mentioned. The case is interesting from the smallness of the dose and from the suddenness of the symptoms.—MINTER, in *The Lancet* (London).

[It would look as if about all the cannabis in the mixture had settled to the bottom—the extractive at least—and thus had been taken in the final dose.—ED.]

Peritoneal Irrigation and Drainage.— Drainage is a life-saving process when used properly, and to use it is not an admission that the operation is imperfect:

The use of the tube alone does not produce or leave any condition that favors the development of hernia:

The omentum or other structures do not become entangled in the openings of the tube:

A small-sized flint-glass tube, with small openings and open end, should always be selected for pelvic drainage:

The tube does not produce fæcal fistula:

The tube should be used when in doubt as to the absence or presence of drainage indications:

To depend upon the microscope findings as to whether a given case should or should not be drained, though seemingly scientific, is neither necessary or practicable:

Gauze drains rarely should be used, and always should be supplemented by a glass drain:

There is no danger of infecting the patient through the tube if the attendant is properly instructed:

Where irrigation is indicated, drainage should be used; many cases will require drainage where irrigation was not indicated:

The emptying of the tube and the time of its removal must be governed by the indications and progress of individual cases:

Irrigation with a normal saline solution cleanses more quickly and effectively than the most thorough sponging:

The irrigating fluid should not be too hot to be comfortably borne by the operator's hand.—CORDIER, in *American Journal of Obstetrics.*

Wandering Spleen.—Splenectomy for wandering spleen is not only justifiable but is a highly successful operation, the rate of recovery being equal to that of ovariotomy in skilled hands. I have collected a score of cases performed within the last twenty years without a death. It has, of course, occurred to many that it would be desirable if it were possible to secure the spleen in the left hypochondrium by means similar to those adopted for movable kidney, and Pouwer endeavored to carry this out in two instances, but his results show clearly that the patients ran much greater risks and had a longer confinement to bed than if he had removed their spleens.

Rydygier has conceived and carried out, apparently with success, an ingenious and simple method which seems full of promise. The great difference between splenectomy and splenopexy is that in the former case the individual is deprived of an organ, and although we do not know with any degree of precision what its real use is, we are, nevertheless, bound to display caution in dealing with it. So far as my own cases go, I have failed to find any evil manifestations. I regard the spleen as a highly-developed and specialized lymph gland, and at present there seems to be no reason for hesitating to remove it when "wandering" and troublesome, in so far as remote consequences are con-

cerned, than in excising a crowd of enlarged glandulæ concatenatæ.

It is a fact that many, if not all, individuals with a wandering spleen are very thin and often gaunt, and as far as my observations go they retain this character when spleenless.—J. Bland Sutton, in *British Medical Journal.*

Massage in Skin Diseases.—Massage in the treatment of skin diseases encourages the circulation, induces more active nutrition, and materially assists in the removal of diseased tissues, infiltrations and effusions by increasing molecular changes by means of mechanical stimulation. As usually performed, however, it is in many cases an unpleasant duty, and consequently seldom carried out so regularly or thoroughly as it ought to be. I have found that in a great many cases the massage can be sufficiently well performed by using an india-rubber roller instead of the hand, thus avoiding unpleasant contact with the skin. I have now recommended this method in skin cases for some time, and find it answer admirably. It is easy of application, and can be applied largely by the patient, though the back must be massaged by some other person. The roller I usually recommend is the ordinary roller used in photographic work, and there are others made which act equally well.

Another method of stimulating the skin in isolated patches is by the use of a blunted Volkmann's spoon or by a curette, both of which instruments I have used with benefit. This method, however, is best applied to the face and neck, and can only be performed by the surgeon. I have found it of great value in obstinate cases of acne and psoriasis and localized indurations.—Tibbles.

Less Restricted Diet in Typhoid.—If the typhoid patient has a craving for solid food, is genuinely hungry, and has not a dry tongue, lips or teeth, I believe the rule of withholding solid food may be broken not only without harm, but rather with benefit. The principal danger to be apprehended is perforation, and it is not a frequent complication, and I do not see that the causes which lead to it can be avoided by the giving of liquid more than solid food,—the ordinary processes of digestion convert solid into liquid food before it reaches the seat of perforation. The majority of cases die from cardiac failure, lung complications, and all the other devastating effects of general infection, against which the patient can set only such powers of resistance as he possesses, and which will be more or less effectual according as his general nutrition is maintained by food and the other effects of the wear and tear of the disease are diminished by all means possible. There is in the treatment of typhoid fever too great a tendency to treat the intestinal lesion at the expense of the individual, or if not that, to make the temperature chart the sole arbiter of our practice.

In thirty-one cases treated on this principle I lost only three, and these could not take solid food. True relapse occurred in only two cases.—A. G. Barrs, in *British Medical Journal.*

Acute Glaucoma.—Twelve years ago a married woman aged sixty-seven years was roused about three o'clock in the morning by violent pain in the right eyeball, accompanied by vomiting, great prostration, and loss of perception of light (glaucoma fulminans). A surgeon was called in, some drops were used, and general directions given, but no operation was suggested, and the patient went on from bad to worse until the eye was completely lost. Three months ago the left eye was attacked during sleep, with precisely the same symptoms—pain, vomiting, prostration, and loss of perception of light. Notwithstanding her bitter experience with the right eye similar treatment was adopted for the left for three weeks. I then found the eyeball stony hard, the cornea steamy, the iris muddy, the pupil dilated to a rim, and the patient profoundly insensible to the most brilliant light. I immediately excised a large piece of iris (about a fourth), taking care to establish a filtrating cicatrix, an operation which was exceedingly difficult; but on its completion the painful symptoms ceased as if by magic, and sight was gradually restored, so that she can now with a little trouble read newspaper type, without glasses distinguish letters an inch long at twenty feet, go about by herself, and manage her own affairs.—Taylor.

Excessive Inflammation from Vaccination.—Now that direct calf-lymph vaccination is generally advocated, and it is admitted that inoculation from this source is commonly followed by more severe local and general results than arm-to-arm vaccination, it may be well that a means of cutting short the inflammation should be known. Should the vaccination pustules on the twelfth or fourteenth day tend to become confluent while the inflammatory areola tends to spread beyond the usual limits the glands in the axilla to enlarge, and the arm, perhaps, to become

œdematous, I would suggest that the area of the pustules should be powdered over with iodoform, and a sterilized dry pad be applied to keep the powder in position and the pustules from friction. In this way the process is completely checked in twenty-four hours. The pustules dry into a cake, the redness subsides, the glands decrease, and the œdema of the arm rapidly disappears. This is in every way preferable to hot fomentations and antiseptic moist applications which, apart from the difficulty of applying to an infant, involve the healing of open wounds.—CLEMENT LUCAS.

Transillumination and Maxillary Abscess.—One ought not to place too much reliance on transillumination in arriving at a conclusion as to the presence or absence of pus in the maxillary antrum. I saw a patient recently who had all the usual symptoms of this condition, and in whom the very dark shadow under the orbit was most marked. I made the usual opening, by means of a drill, through the alveolus, and syringed out a good quantity of pus. About six weeks after the operation the patient came to me nearly well, with very little or no pus coming out of the nose on syringing through the opening in the mouth, and with nearly complete absence of all the other symptoms from which he had previously suffered. I put a Voltolini lamp in his mouth, and to my astonishment the shadow was just as dark and just as extensive as it was before the operation.

Does this mean thickening of the mucous membrane or of the bone, or (which seems to me to be improbable when I remember the exceedingly favorable course of the case) the existence of thick pyogenic membrane? Perhaps other rhinologists have had a similar experience.—BARON.

Fissured Nipples.—As a prophylactic measure Lepage recommends that the nipples should be regularly washed with a solution of mercuric iodide (two to four grains) in spirits of wine (twelve drachms), glycerin and distilled water (each one pint). If after using this for a few days the ulceration disappears a solution of boric acid may be substituted. Joise has observed that cocaine, when applied to cracked nipples, has the power of diminishing the milk secretion, and from this fact he was led to the use of this agent when he desired to complete suppression of milk. He applies a five-per-cent. solution in equal parts of glycerin and water five or six times daily; suppression of the milk is observed in from two to six days. By producing anæsthesia of the nipple, cocaine prevents its erection, and thus favors the decrease in the quantity of milk.—*The Practitioner.*

Spasms and Convulsions in Children: Apoplexy.—After treating six cases I feel warranted in recommending the following:

℞ Calomel, 1 to 5 grains.
Santonin, 3 to 5 grains.
Sodium bicarbonate, 5 to 10 grains.

I give in one dose at bedtime, and follow in the morning with castor oil if necessary, looking well meantime to the diet. The parasiticide properties of calomel and santonin are well known, but just how they inhibit and even relieve spasms and convulsions I am not able to state. That they do have an inhibitory and curative effect in troubles of this character no one can doubt who will give them a fair trial. They are as efficacious in recent apoplexy as in the foregoing.—ROSS, in *Louisville Medical Monthly.*

Passive Motion After Fractures.—While nearly all text-books are united in recommending passive motion after fractures near or involving joints, the idea is steadily growing that such practice is bad, tending to increase inflammation, keep up irritation, and lead to excess of callus. Senn says: "I am firmly convinced that it is desirable practice to postpone passive motion until the intermediate callus is firm enough to prevent motion at the seat of the fracture. Postpone passive motion from eight to twenty-one days, in the child; in the adult, for three or four weeks. It is by securing rest for the fracture that we diminish as far as possible the amount of exuberant callus so often in the way of an ideal functional result."—*Louisville Medical Journal.*

Croup.—

℞ Tincture tolu, 12 drachms.
Syrup squill, 2 drachms.
Paregoric, 3 drachms.
Glycerin, 12 drachms.
Water, to make 6 ounces.

A half-teaspoonful is given every three hours during the day, and every four hours during the night. During the intervals the spasms to be relieved by spraying the mucous membrane of the throat with a two-per-cent. solution of cocaine and enveloping the throat in a cloth wet with a solution of a tablespoonful of ground mustard to a quart of hot water.—*Medical and Surgical Reporter.*

Gout and Rheumatism. – Guaiac is of great value in the treatment of rheumatic and gouty affections, and in warding off the recurrence of acute attacks. The drug is absolutely innocuous, and can be taken continuously for an indefinite period. It possesses the power of directly relieving, and may be given when fever is absent. When taken in intervals between the attacks it has power to avert their recurrence—prolonged use does not impair this prophylactic power. In some cases guaiac causes intestinal irritation, and in such serpentory may be substituted.—Sir Alfred Garrod.

Effect of Ergot.—If an ergotic pain is produced to last thirty minutes, in a case where the placenta is on the fundus uteri, and to be jammed for thirty minutes against the child's breech, without an instant of relaxation, who can doubt that its circulation is either wholly or nearly abolished, and that when the child emerges at last from the mother's womb, it will emerge quite dead, or in a profound asphyxia from the long suppression of its placental circulation? Multitudes of children are born dead from this very cause, by the imprudent exhibition of a medicine which as certainly excites spasm of the womb as nux vomica does of the other muscles of the body.—Meigs.

Acne Rosacea.—Betz, of Heilbronn, recommends inunction with oil of turpentine. A woman had bronchitis, and he prescribed for her frictions of the chest with the oil; she had also acne rosacea. A few months later he found she no longer presented any trace of the acne lesions, and learned that this result had followed upon her rubbing the turpentine oil on the rosaceous patches. Thereupon he recommended the treatment to a man who for seven years had resisted all treatment, and the lesions disappeared in less than a month.—*Journal des Praticiens.*

Warty Growths of Genitals.—These, more especially in the male, are always to be suspected of malignancy, no matter how innocent they seem:

They should either be left entirely alone or be thoroughly removed by knife or cautery:

Imperfect attempts at destruction, as with nitrate of silver, carbolic acid, etc., are especially to be avoided, there being many cases recorded in which they have apparently stimulated a benign growth into malignant action.—*International Journal of Surgery.*

Fistulas Cured by Cocaine.—Two cases of salivary fistula were cured by painting with solution of cocaine after being unsuccessfully treated with nitrate of silver and chloride of zinc. The solution used was seventy-five grains to twelve drachms each of water and glycerin. The skin alone was painted, over quite a large surface, twice a week. No result was perceptible at first, but by the end of the second week the improvement was evident, and the cure progressed to completion.—*Bulletin Médicale.*

Camphor as an Antigalactic.—In thirty cases I have employed camphor internally, in doses of three grains three times a day, to bring about suppression of the milk. The treatment was continued for three days, and in almost every instance it diminished the secretion to a remarkable extent.—Herrgott, in *Indépendence Médicale.*

[The topical application of the tincture is also valuable.—Ed.]

Chronic Pharyngitis. — Dissolve fifteen grains of menthol in one hundred and fifty grains of oil of sweet almonds; dip a water-color brush into this solution and paint the inside of the nostrils therewith, while the patient holds his head far back and breathes deeply. Then with an elbow-shaped handle and larger brush paint the pharynx copiously, reaching down as far as possible; also paint up into the nose.—*La Médecine Moderne.*

Eruptive Diseases.—An infusion of avena sativa, given hot in cupful doses, will assist in "driving out" any of the eruptive diseases, and is also a sedative of considerable value. It is made by taking a handful of oats, washing or dusting thoroughly, and pouring upon them a quart of boiling water; this is covered with a towel and allowed to stand on the back of a stove without boiling.—Child, in *Medical Council.*

Dipsomania.—Strophanthus has been used with remarkable success in this malady. A man who had been a hard drinker for five years was given a few doses of strophanthus, which not only entirely relieved him of his drink propensities in less than a fortnight, but also made him abhor the sight of liquor —the very odor of which now disgusts and nauseates him.—*Journal of Materia Medica.*

Pruritus of Pudendum.—I never fail to relieve this form of pruritus by applying

compresses wet with a hot solution of a tablespoonful of tannin in a quart of water. The vagina is previously douched with an antiseptic solution, and a wad of cotton wet with the tannin solution laid between the labia. This is done every night.—HEIDENHAIM, in *Berliner Klinische Wochenschrift.*

Influenza.—

℞ Quinine, 90 grains.
Powdered digitalis, 30 grains.
Powdered squill, 30 grains.
Extract of opium, 9 grains.
Liquorice juice, a sufficient quantity.

Make sixty pills, of which four are to be taken daily.

—*Wiener Medizinische Blätter.*

Asthma.—Do not think asthma is a neurosis. The cause of the trouble should be sought for primarily in the gastro-intestinal canal. Successful treatment should include a regulation of the digestive organs and of diet, as well as attention to the nasal passages.—GRAYSON, in *University Medical Magazine.*

Gout.—

℞ Tincture of stramonium, 4 drachms.
Tincture of colchicum seed, 6 drachms.
Tincture of guaiacum, 60 drachms.

M. A teaspoonful, three times a day, in milk.

—*Therapeutische Monatshefte.*

Singultus.—A new method of stopping hiccoughs is said to have been accidentally discovered in a French hospital; it consists in thrusting the tongue out of the mouth, holding it in this position for a time.—*Lippincott's Magazine.*

New Pimple Cure.—Wallison says that fluid extract berberis aquifolium, in doses of ten to thirty minims, three times a day, will soon clear away pimples from the face and much improve the complexion.—*Practical Druggist.*

Foreign Body in Ear.—If of vegetable nature it can usually be reduced in size before removal by instilling a few drops of glycerin, or of alcohol and water.—*Medical Review.*

Pin-Worms.—Injections of lime-water administered every morning for two or three days is said to be a positive cure for pinworms.—*Post-Graduate.*

Medical Progress.

THE PUBLIC FUNERAL.—The public funeral is a public nuisance, and should be prohibited by law. It is of no possible benefit to any one living, except the liveryman, and is of absolute harm in more than one respect: to children, whose sensitive minds are unduly affected by the sad rites; to the aged, who are often powerfully impressed with the idea that perhaps they have one foot in the grave. Other evil consequences are exposure in all kinds of weather, and the danger of contagion that exists when the subject of the occasion died with a communicable disease,—this latter is, in many cases, prohibited by the health boards, but the practice of attending funerals, regardless of the disease, prevails very largely in the country districts, restricted only by the rare good sense of a small portion of the population. The manner of disposing of the dead has always varied, and is indicative in a large measure of the condition and character of the people.

Under the influence of modern civilization, some marked changes in the manner of disposal of the dead have taken place, and we are again, to a certain extent, advancing backward (?) to the pagan methods, cremation, the only rational and commendable means for attaining the ultimate end, disintegration and annihilation of organized structure.

There is in the human race, planted deep in their breasts, a sort of innate desire and longing to do something to honor the dead. There are those who think this can be accomplished best by a gorgeous funeral parade, a display of innumerable quantities of crêpe, and a remarkable exhibition of lung power. Unfortunately, when a death takes place, the sensibilities of those upon whom the management of the obsequies devolves are so stunted by the shock, superinduced, perhaps, by many long nights and weary days of watching and nursing, that they will listen to no arguments, but will insist upon consigning the dead one to the grave in just the same manner that their forefathers were laid away, and so it generally transpires that their will is law. For this reason Legislatures should see that a law that embraces the meaning of these thoughts be placed on the statutes thereof. Until this is done, there are three persons upon whom there rests a certain responsibility to try to prevent these exhibits—the clergyman, the physician, and the undertaker.

To evade this responsibility, and refrain

from trying to persuade the immediate relatives of the dead that the best interests of humanity at large are more probable of being served by the avoidance of the public funeral, is to manifest improper regard for the living, whose interests are certainly of much greater importance than those of the dead.

Let the survivors be assured of our esteem for the honor which they feel in duty bound to bestow upon the remains of their loved one by public funeral services, but at the same time state that we do not consider the omission of it, when demanded for the public good, any serious detriment to the body or spirit of the deceased, regardless of public opinion to the contrary.—ALBRIGHT, in *Magazine of Medicine.*

VOMITING LARGE MASSES OF CANCEROUS MATTER.—An emaciated man sixty years old, extremely anæmic and bordering on syncope, complained of pain and tenderness in the epigastric region, where manipulation discovered the stomach to be enlarged. He had vomited twice the morning I saw him. The vomited matter consisted of blood, mucus, and numerous bits of carcinoma of the colloid kind. There were three of these bits so large that his wife said if she had not pulled them out of his throat he certainly would have been suffocated.

The cancer thrown up was from eight to ten ounces in weight, and no doubt had so filled the stomach that space for food must have been very much curtailed.

On examining the vomited matter was found a ring of cancer about an inch and a quarter in diameter, of firm and tough consistency, and of dark color—the latter in marked contrast to the rest of the growth, which was of an amber hue; it had probably encirled the pyloric orifice, and the hardness and smoothness of its lumen doubtless was caused by food passing into the duodenum. The ring also formed the boundary of the cancer in that direction, and helped to show the unsuitableness of the duodenum for growths of this kind.

The cancer grew from the pyloric end of the stomach, and I am inclined to think it assumed a cauliflower shape, the stem of which ultimately gave way to the energetic action of the healthy part of the stomach and of the abdominal muscles.

The patient's gastric ailment began in January, 1895, with an attack of hematemesis, and from that time to the present he suffered more or less continuously from pain and indigestion.

The expulsion of the cancerous matters produced a good result, for instead of sinking the patient rallied and has since been daily improving. Treatment consisted solely of an astringent and sedative mixture and nutritious enemata for the space of twelve days—taking food by the stomach, however, caused neither pain or inconvenience. After the vomiting of the cancerous particles the long rest given was undoubtedly of great advantage to the stomach; the repose enabled it to contract into something like its normal limits, and also to regain much of its natural power of digestion.

In cases of cancer of the stomach small portions of morbid growth may be vomited from time to time, but the ejection of such large quantities is so rare an occurrence that I deem it worthy of record.—WILLIAM O'NEILL.

A LARGE MOUTH CONCRETION.—Mrs. G——, aged thirty-two, consulted me in September, 1896, for a large gowth of long standing, which filled the right buccal cavity and had caused ulceration through the upper lip and great deformity of face. At the age of twelve years she suffered from "fever," that lasted considerable time, followed by a slow convalescence, during which the teeth in the right side of the lower jaw became loose and dropped out one by one, but without any pain or ulceration of the gums. In about six months she began to notice a "shell-like" mass on the gums from which the teeth had fallen, apparently in the area occupied by the molars. For ten years this growth was gradual and gave little trouble; then deformity began and increased steadily, but it was only within a year that marked increase in the size of the mass and troublesome symptoms developed. The growth filled the whole right cheek and produced great fattening of the right side of the face and the right nostril; had ulcerated through the upper lip at one point, and the whole lip was greatly swollen. The point which presented at the angle of the mouth was evidently calcareous, but I mistook this for a simple coating. The fetor was horrible and the mouth so sensitive that manipulation was impossible. I looked upon it as a growth from the upper alveolar border, probably originally of the nature of epulis, but having recently (coincidently with the history of rapid increase in growth and symptoms) become malignant; so advised the removal of the upper jaw. She went home, but returned October 12th, and prepared for operation on the 19th. When fully anæsthetized I was

able for the first time to make a critical examination, and then found to my surprise that the mass consisted simply of a large concretion the size of a large hen's egg, lying free in the mouth, having formed a cavity for itself by displacement of the soft parts and absorption of the alveolar border of the lower jaw. It was so large that I removed it with considerable difficulty. A couple of teeth were embedded in its lower border, and it was clearly an enormous growth of "tartar." The ulceration of the lip healed rapidly, and the patient was discharged in a week quite well, except for the deformity which had occurred during the growth of the mass. The mass, which was oval in shape, measured 13.5 centimeters in its greatest circumference and 11 centimeters in its smallest circumference. —James Bell, in *Montreal Medical Journal.*

The Chin as an Index of Character.—Protruding chins characterize men and women of the "get-there" type. Successful people usually carry their chins thrust forward, with compressed lips. This chin, if heavy, with broad rami and swelling masseters, indicates fighting blood.

A retreating chin shows lack of force, mentally, morally, and physically; usually of the sweet, yielding sort; soon discouraged; desires protection; small executive force.—The development of other faculties often makes up for this defect.

A small, well-rounded chin, with mobile and red cushion of flesh upon, indicates a pleasure-loving owner. If dimpled, all the more so, for dimpled chins belong to coquettes. People with dimples love to be petted and loved; like admiration and praise. Generally fickle. Usually this chin is healthy, recuperative, and long-lived.

Broad chins signify nobleness, and large dignity, unless vertically thin, when, if with it there be thin lips of bloodless kind, you find cruelty.

Square chins with little flesh denote firmness and executive ability. These make good haters.

Drunkards usually have a circular line about their chins.

Slovens have wrinkles about their chins.

Long, thin chins are poetical, unstable, and delicate in constitution. Such people are subject to bowel derangements. If thin through the angles of the mouth, too, they are prone to tuberculosis. Generally short-lived.

Medium chins with a suggestive bifurcation in the centre, with small mounds of flesh on either side, characterize generosity, impulsiveness, cheery natures. (The same sized chins, with a dab of flesh just under the centre of lower lip, indicate meanness, selfishness, brutality.)

No one feature can be taken in judging character. Often development of other faculties of mind or feature entirely governs. In each case take the "totality of indications" before judging. —Crutchen, in *St. Louis Clinique.*

Nothing New Under the Sun.—It is worthy of note that while the science of medicine in its various branches has been studied and practiced in India from time immemorial, and that many of what are regarded as modern discoveries in Europe have long been familiarly known in the East, yet practically nothing has been understood there of what we have learned to call sanitation. From the remarkable book just given to the world by the Indian Prince known as the Thakore Sahib of Gondal, on the "History of Aryan Medical Science," we learn that much was known to the practitioners of ancient India which is usually understood to be the result of quite recent European discovery. It is rather startling to be told that not only were the practices of percussion and auscultation familiar to the medical men of 2000 years ago, but they were acquainted with the circulation of the blood, and practiced vaccination for smallpox, and cranial and abdominal surgery. The use of anæsthetics, and even of a rudimentary sort of antisepsis, is said to have been known, and the latter at least may be regarded as belonging to the domain of preventive medicine. But of sanitation in general, as that word is used in our days, they seem to have known nothing; and their descendants have been content to dwell in equally blessed ignorance, until awakened to knowledge and aroused to action by the troublesome "doctor *sahib*," backed up by the Mohammedan or Hindoo policeman. Perhaps, after all, no better thing could have happened to Calcutta and Bombay, than this visitation of bubonic fever; for the wholesome alarm caused by the outbreak will probably lead to the adoption of preventive measures which will be of inestimable benefit to both cities, and which, through them, will more or less intimately affect the whole of India.—*Sanitary Record.*

The Bicycle.—We all have our hobbies and we do not like to hear them attacked, but of all the hobbyists those who ride the double wheel are perhaps the most intolerant

of criticism of their favorite exercise. Nevertheless, at the risk of offense to these "techy" enthusiasts, medical men ought to insist upon the need of moderation in the use of the bicycle by children. We do not refer here to the alleged danger of spreading the pelvis of young girls, for we fail to see that there is any such danger when a properly constructed saddle is used, but to that of permanent heart injury. Children, boys especially, are always tempted to rival their older playmates in feats of strength and endurance, and in no sport is this temptation more irresistible than in wheeling, and in none are the consequences of yielding to it more baneful. In ordinary games, even if the child taxes himself beyond its strength, the strain is of short duration, and the heart readily recovers itself when the task is accomplished; but not so with bicycling, for here the strain is kept up perhaps for hours, and the injury done to the heart in a single afternoon may be beyond even the recuperative powers of youth to undo. We believe in the wheel, we believe that this form of exercise is a capital one, but we believe also that there is a great and ever present danger of overdoing it, and that the results of such overdoing are lamentable. The evil of excess in adults, especially in elderly adults, is greater than it is in children, but adults, when once warned, must look out for themselves; children, however, must be protected against themselves. It is the duty of the physician to warn the natural protectors of these children. Let them wheel by all means, it will do them good, but let it be seen to that they do so in moderation.—*Pediatrics.*

Silly Obstetrics.—For a few fellows who are fortunate enough to get a position in a hospital, with but a limited experience outside, to endeavor to make us believe that every case of surgery or obstetrics should be sent to them, and because of no hospital we are to put them in their hands, and have nothing further to do with them, is foolishness. I wish I was so situated I could send all such cases to hospitals of which I had the whole control, but for some one else to look after them after they leave me does not suit. But we in the country cannot do this now. What we want is for our city brothers to give us something that we can put to practical use in cabins where people eat and live and sleep. I suppose we who live where we have to resort to anything from a razor for ovariotomy to a tin pen-holder to draw off the urine, and still have good results, what would it be if we were situated differently? Now, what we want is something we can resort to in the country, where we have nothing. In writing up these cases in the city, give us country fellows something we can do, situated as we are.—Parker, in *Cincinnati Lancet-Clinic.*

The Bicycle and the Kidneys.—Recent investigations of the urine of healthy subjects before and after bicycle riding showed in half of the cases such an abundance of albumen and cylinders of various kinds that the diagnosis of acute or chronic parenchymatous nephritis would certainly have been made by any one unacquainted with the circumstances. It is evident that the condition is what Leube designates as physiologic or functional albuminuria, with the difference that Leube and Senator state that there is no trace of cylinders in physiologic albuminuria, while in eight riders examined, members of a bicycle club, tube casts of all kinds were found in abundance in all but two, with more or less albumen in all. Four other riders gave out after an hour and a half or three hours' ride, and in two of these the urine was normal; in the other two it was moderately albuminous, with no casts. Five healthy boys also showed albumen in the urine after riding. The rational conclusion is, that the frequent repetition of such experiences can scarcely fail to terminate in chronic nephritis sooner or later.—*Gazzetta Degli Ospitali.*

Appendicitis.—I have been asked if I operate on all cases of appendicitis in which the symptoms have practically disappeared, and I have replied that my feelings have changed so much of late that I feel quite willing to do so. Treves lays down the rule that when attacks have been very numerous, and when they have been increasingly severe and threaten life an operation should be performed. My own view is that after two attacks a patient will as surely have the third as that after ten attacks he will have the eleventh. There is no rule which applies to the severity of the succeeding attacks. We know, however, that each attack renders an operation more and more difficult, and that it requires a larger incision and involves greater injury to the abdominal wall.—McBurney.

Diagnosis of Pregnancy by Urinary Phosphates.—When conception occurs the triple phosphates in the urine change their form; they lose their feathery appearance, the change beginning at the tip and pro-

gressing toward the base. One side only may be affected, or both, leaving only the shaft, and perhaps a few fragments adhering; the shaft assumes a beaded or jointed appearance. These changes commence within twenty days after conception, and are most marked in the early months, and almost absent in the later months. When the death of the fœtus occurs, the phosphates may resume their normal appearance; the change in the form of urinary phosphates being recognizable very early, it is of the greatest value when other signs are of the least reliability or not present at all. A diagnosis of probable pregnancy can be made without a physical examination, or without exciting the suspicion of the patient.—*Annals of Gynæcology and Obstetrics.*

Sarcoma and Native Algerian Doctors.—Several cases of sarcoma have been known to be entirely and permanently cured by native *hakims* in Algeria, who apply a tar obtained from certain bushes in the Sahara district, among them juniper. The question arises whether the supposed sarcoma may not have been a tuberculous affection, as tar is especially efficacious in tuberculosis, while it has no effect on sarcoma, and it is not always easy to distinguish a sarcomatous from a tuberculous tumor. Epitheliomata are unknown in Algeria except among Europeans. This may possibly be due to vegetarian diet. Verneuil and Reclus long ago asserted herbivorous animals are much less liable to cancer than carnivorous, and they ascribe the six-fold increase in the number of cancers in hospitals during the last forty years to the increased consumption of meat by the laboring classes.—*Bulletin de l'Académie.*

Coffee Blindness.—Snaitken says the Moors are inveterate coffee-drinkers, especially the merchants, who sit in their bazaars and drink coffee continually during the day. It has been noticed that almost invariably when these coffee drinkers reach the age of forty or forty-five their eyesight begins to fail, and by the time they get to be fifty years old they become blind. One is forcibly impressed by the number of blind men that are seen about the streets of the city of Fez, the capital of Morocco. It is invariably attributed to the excessive use of coffee.—*Medical Review.*

Enlarged Prostate.—A man aged between fifty and sixty years, afflicted with enlarged prostate and requiring constant use of catheter, recently became afflicted with acute orchitis—probably caused by the irritation of the catheter, as great difficulty was experienced in passing it. Almost immediately after the onset of the orchitis he could pass urine more or less freely, an act he had not performed for over a year, and the whole bladder symptoms underwent great improvement—an improvement that has continued since the orchitis got better.—*Omaha Clinic.*

Lack of Hair on Forehead.—The fact that the forehead is not covered with hair Exner explains on the theory that in the contest between the natural tendency of the hair to protect the head against changes of temperature and the tendency of human nature towards beauty, the latter has prevailed more easily because the non-conducting properties of that portion of the skull are increased by the air containing frontal sinuses, and that that portion of the head is easily protected from the heat of the sun by inclining the head forward.—*Medical Times.*

The Uterine Sound.—The use of this instrument to reduce retrodisplacement of the uterus, although recommended by some text-books, is never to be resorted to. The dangers, from liability to perforate the organ, of carrying infection into its cavity, or of injuring its mucous membrane lining so that germs that are already present may invade the tissues, are too great to warrant the risk. The sound should never be used for this purpose. —Montgomery.

Incisions of Face.—Incisions made in the skin of the face should be placed where there is a shadow, or in the bottom of the furrows produced by the habitual expression of the patient. When this cannot be done, the incision should be parallel to the facial line rather than across it. A slightly curved incision makes a less conspicuous scar than a straight or abruptly curved one.—*Railway Surgeon.*

Neuralgia.—Facial neuralgia is always a symptom more or less of antrum disease, and it is well to thoroughly examine the nose and its accessory cavities before placing the patient on too strong a drug and dooming him or her, as is too often the case, to an opium or other drug addiction.—*Kansas City Medical Index.*

The Medical Age.

VOL. XV. DETROIT, JUNE 10th, 1897. No. 11.

Original Articles.

COMFORTING FACTS ABOUT CONSUMPTION.*

BY CHARLES W. DULLES, M.D.

It is well known to students of human nature that it is always easy to excite the fears of the community, and often hard to allay them. An interesting story showing how the readiness of the people to be scared was utilized by an ingenious person is told of a French adventurer, who, finding his resources at a low ebb, recovered them by the effect of a public announcement that on a certain day he would raise the dead buried in a cemetery of Paris. This announcement, placarded over the city, at first met with well-deserved ridicule. Before long, however, the adventurer was approached by one person after another to whom it would be exceedingly inconvenient to have the dead raised. A spendthrift came to him who had recently inherited his father's property; a newly married man, entertaining a fear that it might be barely possible that he should be confronted with his former wife, represented the awkwardness of such a situation; and others who would be equally embarrassed sought him out singly and secretly, begging that he would choose another cemetery for his experiment. At first the charlatan pretended to be obdurate, but when enough persons had testified to their fear by presenting him with large sums of money in order that they might be spared the trouble which they feared, he made his escape from Paris, carrying with him a small fortune and leaving behind him placards announcing that in view of the many entreaties he had received he would not demonstrate his power.

In regard to a number of diseases that have afflicted mankind, individuals and communities have at different times exhibited precisely the unreasonableness of fear which is said to have been shown in the case just described. The origin of disease, which is at all times a sufficiently obscure matter, has been misunderstood and misstated until men feared not only what actually threatened them, but tenfold more of which they stood in no danger. Consumption is a disease in regard to which this has been true. At certain times and in places as widely separated as Ireland and Italy the belief that consumption is a contagious disease has led to the adoption of extreme measures to protect the community against its spread. In some places it was customary to sacrifice the clothing and furniture used by the sick, and even to scrape the walls and tear down the woodwork of the chambers in which they had been. Somewhat recently, and especially since the discovery of the bacillus tuberculosis by Koch, the idea that consumption is a disease both infectious and contagious has taken possession of the minds of a number of medical men, who have promulgated it with great assiduity. In our own State there have been some most earnest advocates of this view who, prompted no doubt by the best of motives, have so used the medical periodicals and the public prints as to lead to a fear which passes far beyond the limits of reasonableness, and which, being a mistake, ought to be corrected. It is in the highest degree desirable that proper precautions should be taken to prevent the spread of any disease, and no one should interpose any obstacles to teachings that will lead to the proper care and destruction of the expectoration of consumptives. But all this may be done without any false teaching in regard to the communication of this disease. It is pleasant to know that in a number of different parts of the

*Read before the Medical Society of the State of Pennsylvania, May 18th, 1897.

world discreet men have arisen to controvert the error which had already obtained too wide a spread. Some years ago the College of Physicians of Philadelphia, after a thorough discussion of the subject, by resolution testified its disapproval of restrictive measures and compulsory registration of consumptives, although at that time a most earnest advocate of the contagiousness of consumption strained every point to produce a different utterance.

Experience does not support the theoretical belief which so many men founded upon the now somewhat old experiments of Cornet which are almost always quoted in this connection. A good many who quote Cornet's studies do not seem to have discovered the fact that he by no means ranks as a believer in the contagiousness of consumption in the ordinary sense of the word, for Cornet himself has said that the dust of streets where consumptives have spat may be neglected so far as risk is concerned. This is because, as every student of the subject knows, the wide dissemination of the sputa of consumption, its great dilution in the material found upon streets and in the air, and its extreme sensitiveness to the destructive action of light and air, render it comparatively innocuous to human beings. Of course in saying this we will none of us ignore the fact that interesting and curious observations have been made in which vulnerable animals injected with various street refuse have succumbed to tuberculosis. In this connection it may be worth while to note that there is an enormous difference between showing that animals under the most favorable circumstances and subjected to inoculations within their tissues of presumed tuberculous material became affected with the disease, and the assumption that human beings receiving such materials only by breathing and through nasal passages (which experiments have plainly shown sift out in a wonderful degree micro-organisms from the inspired air) will certainly contract disease by the accidental contact of occasional bacilli.

It may be said now, without fear of contradiction from persons well instructed in regard to tuberculosis, that it is not a contagious disease in the ordinary sense of the term. Unlike other diseases it has not spread where large numbers of persons afflicted with it congregate. The testimony of hospitals and other institutions for the care of consumptives, all over the world, is uniform in this respect, namely, that such hospitals furnish no evidence that consumption is a contagious disease. I will not trouble you with figures in regard to this, but I have them at hand and they are easy to obtain by anybody who is interested in looking into the subject. This view of the comparative innocence of hospitals for consumptives, so far as contagion is concerned, is borne out by the experience of general hospitals in which consumptives are indiscriminately treated. I do not know of a single public (pauper) institution in which there is any evidence that the consumptives there treated communicate their disease either to their fellow patients, to comparatively well inmates, or to attendants. Furthermore, it is an interesting fact that in a number of places where consumptives have gathered the mortality is not increased among the general population, but diminished. This is accounted for in certain German resorts very readily by the fact that the incoming of persons requiring care and feeding has given employment to men and women who otherwise were unemployed and has increased their ability to supply themselves with sufficient food and the things which contribute to life and health. The experience of places like Davos-Platz in Europe and Colorado Springs in this country is precisely the same, and shows that where large numbers of consumptives are mingled with large numbers of persons who have not the disease there is no evidence that it spreads from one to the other. In a recent communication* Doctor Clinton Wagner, of New York, quotes Doctor S. E. Solly, of Colorado Springs, who sums up his experience and observation as a specialist by saying:

> The dangers of contagion from a consumptive are so easily controlled that it is by no means necessary to separate consumptives from healthy persons. . . . At Colorado Springs the consumptives mingle with the other residents of the city on all occasions—at church service, theater, concerts, and in the overheated and crowded rooms of private residences during social functions; they reside in the same hotels, boarding-houses and

* *Boston Medical and Surgical Journal.*

private dwellings with those not afflicted with the disease, and no attempt at isolation has been made. Notwithstanding this apparent indifference on the part of the authorities to the contagiousness of the disease only twenty cases have originated in Colorado Springs in twenty years.

Doctor Solly also says, to disarm a possible objection to the obvious deduction from these facts:

> In the poorer lodging-houses of the town there are many ill-ventilated rooms, inside or on the north side of the building, inhabited by consumptives and their families, where recklessness of expectoration and carelessness of ordinary cleanliness are marked features of their domestic *ménage;* yet cases of contagion do not average more than one a year.

Doctor Wagner adds, from his own observation:

> At Davos-Platz, in Switzerland, where I spent a winter a few years ago, a very large number of consumptives were staying. The hotels were crowded, and of the fifteen hundred strangers in the village about one thousand were consumptives. At the hotel at which I stayed there were about one hundred and twenty guests, about eighty of whom were consumptives. At Davos, during the winter, the invalid's day for outing is limited to four and one-half hours; the remainder of the twenty-four hours is spent within doors. No one stood in dread of contracting the disease, and no cases occurred in which it was conveyed from person to person. No special precautions were taken by the physicians and local authorities to prevent contagion, other than good ventilation of the living- and bed-rooms. As in Colorado Springs, no cases of the disease originated in Davos.

At the meeting of the American Climatological Society held in 1896 Doctor Vincent I. Bowditch, of Boston, earnestly deprecated the reckless and extravagant utterances regarding the contagiousness of pulmonary consumption sometimes made by medical men, and remarked that in well regulated hospitals or sanitaria for consumptives contagion is almost unknown.

In view of these facts it will not surprise any one to learn that the presence of institutions for the treatment of consumption are not sources of danger to people who live near them. Not long ago the Rush Hospital for Consumption in Philadelphia, with which I have been connected since its origin, and of which I was one of the founders, was put to some trouble by the fears excited in the minds of those who lived near a building which it purchased. It was found impossible to allay these fears, although those who entertained them were unable to prevent the occupation of the building as intended. But what is true of the places just described is true all over the world. In a recent editorial in the *Boston Medical and Surgical Journal** a statement is made that boards of health in some cities have published circulars tending to make the consumptive a social leper, to placard his house, to isolate him, and to impose such restrictions as, Cornet says, "would consign him to an island in the solitary ocean;" and further, Doctor Russell of Glasgow states:

> In the *academic* sense it is infectious; in the popular sense it is not. . . . There is no evidence to show that tuberculosis is contracted while persons are out of doors in the open air; the facts are all the other way.

An institution that seems to have been aimed at by a law recently proposed in Massachusetts is also cited in the editorial just mentioned as having been established for thirty years without it being known that any attendant or nurse had contracted the disease in the institution, while the neighborhood in which it was established had a lower death-rate than any corresponding part of the city of Boston. The London hospitals for consumptives have never attracted the attention of the health authorities in their endeavor to restrict the spread of consumption. Doctor Edward O. Otis, discussing this subject in the *Boston Medical and Surgical Journal*,† refers to the now well known experiments of Ransome and Delépine in regard to sputum and the weakening of its infective properties after a short exposure to light and air, and cites a number of conclusive studies on this subject by other discoverers with whose writings I am familiar, but which I need not repeat as all are to the same purport.

Consumption is *not* contagious, and no one who is careful in the use of language and who is familiar with the facts of the matter will venture to assert that it is. Furthermore, those who have alarmed the community by expressing extreme views in regard to its infectiousness have committed a serious blunder; for while observation justifies the belief

---

*March 25th, 1897, page 291.

†April 1st, 1897, page 305.

that there is distinct danger that persons deprived of their liberty, with little opportunity for exercise, whose habits of life are changed, whose food may be insufficient, and who are herded with others suffering with consumption, may contract the disease from them (as shown by the statistics of convents and prisons), the malady can hardly be called infectious in a broad and general way. As Doctor Russell of Glasgow has said, "In the academic sense it is infectious; in the popular sense it is not;" and those who wish to secure the observation of prudent rules of health would do well to avoid those extreme pronouncements which have been made in this country and in some others, and to rather copy the careful and discreet utterances of the French Society for the Prevention of Pulmonary Phthisis and Other Forms of Tuberculosis, which, in a circular intended for general distribution, makes a statement that can be thoroughly endorsed by those who wish to do what they can to prevent the spread of this disease, namely:

> We know further that the consumptive is not in the least dangerous by contact or proximity; that it is never his body nor his breath which is hurtful; and that we can chat with him for hours, live with him for years, and even sleep in his room and give him the most constant care without running any serious risk, *provided we take certain precautions*, the chief of which is to collect his expectoration, and not to delay the destruction of his sputum until it becomes dry and is disseminated as dust in the air.

Finally, although I have just used the word "spread" in connection with this disease, I think it is well to add that consumption is not a disease that is now spreading; on the contrary, in the time covered by most accurate vital statistics of this country and Europe, it has diminished considerably in frequency. Some earnest advocates of restrictive measures have already claimed that the reductions observed within the past few years have been due to the attempts that have been made to restrict it by boards of health; but, fortunately, the community has a better reliance than this weak and inefficient one, and is encouraged by the knowledge that for many years there has been a comparatively steady decline in the proportion of cases of consumption. The disease is not spreading, as alarmists make the community to fear, but is actually contracting; and the hope may be entertained that, with the inculcation of reasonable and proper precautions, without spasmodic and violent measures, the ravages of consumption will become less and less, and it will soon cease to be the terror that it now is.

4101 Walnut Street,
Philadelphia, Pennsylvania.

FATTY DEGENERATIONS THAT ARE NORMAL.

BY EPHRAIM CUTTER, M.D.

This title may seem out of place, as it clashes with the definition; still normal uterine subinvolution, and the clinical morphology of puerperal discharges, beautifully demonstrate fatty epithelia, oil globules, and muscular fibres of uterus large, long, flat pointed at both ends, and undergoing fatty degeneration whereby the organ is reduced to normal in a few weeks if health is good.

Again, there is normal ovarian subinvolution,—in the Graäfian follicles or corpora lutea of the ovaries after ovulation.

Epithelial cells of the kidneys, according to one author; epithelia of the breasts producing fat of milk; epithelia of the sebaceous glands; corpora amylacea, or amyloid bodies found in the brain, called "brain sand," and considered as normal by some writers.

If the diseases due to old age are normal, then as most of them are fatty ills they are diseases due to normal conditions. At least it is maintained that death from old age is a natural death, or that the way in which death comes by molecular changes when the normal limit of life is reached is natural. "The thing that is seen is temporal," applies to the animal and vegetable kingdoms. Organic life has periods of termination to its existence, while spirit is "eternal."

Adipocere, though not a clinical change, may be mentioned here. Corpses have been known to turn, after burial generally for years, into a hard, fat, waxy substance, and portions of human muscle have undergone the same change when kept under water. Adipocere is regarded as a chemical change which certainly prolongs the existence of the parts thus changed; and though a degeneration, it is a preservative one after death.

Obesity is an accumulation of fat where it naturally belongs in the human body, but does not necessarily include the substitution of other tissues by fat, though the two conditions are sometimes found together. Excessive obesity may become a fatty ill, and then is amenable to the same treatment as the latter. The obese, save from the inconvenience of excessive bulk, are to be regarded as in a normal condition, until there is an invasion of tissues and organs and these are more or less replaced by fat. When obesity and fatty degeneration are found together skill in diagnosis is well displayed in determining the existence of the latter. The two conditions are popularly connected together, and generally obesity is thought to precede and induce fatty degeneration; but the fallacy of this is shown by lean people presenting the most typical cases of fatty degeneration of tissues and organs.

The offices of fat in the healthy body are too well known to need repeating here; they are needful to perfect living; but when omental fat accumulates in masses as large as a man's hand, it is "obesity" and as much a condition of disease as it would be to have one's arm four feet long. Obesity is amenable to diet more than any other means, and does not have the proper attention from the profession, hence the demand for advertised nostrums.

The fatty ills which are normal are· Premature old age: Fatty heart: Fatty liver: Fatty kidneys: Fatty muscles, especially of limbs.

Not only do muscular tissues, but also capillary, venous and arterial vessels, connective fibrous tissues, epithelia, intercellular and areolar fat tissues, glandular structures, and even tuberculous lungs, fattily degenerate.*

A common example is the subcutaneous solid fat becoming oils, and in the writer's estimate this is an important primal link in the chain of evidence necessary to establish the diagnosis of fatty ills, of which more later. Fatty thyroid glands occur in acute diseases.

Cancer-cells and cells of inflammatory exudadation, when their functions have attained their full development and cease, fattily decay. The flesh and other protein components of one animal when kept in the peritoneal cavity of another animal will undergo fatty degeneration.*

The fatty degeneration, acute, which occurs in phosphorus poisoning and lately noted in a case of death from eating a bad oyster, raw; where death ensued in a few hours.†

Probably also in water-gas poisoning.

Alcoholism is a masquerade of fatty ills. A friend suggests King Alcohol wears the mantle of fatty degeneration. It certainly is a carbohydrate; it certainly makes fatty noses, livers, kidneys, hearts, brains, etc.; it loads down all the systemic functions when used in excess. Alcoholism may be termed an acute locomotor ataxia, acute dementia, acute softening of the brain, acute idiocy, acute mania, acute epilepsy, so much so that it seems wise to introduce it here as a masquerader. Again, the alcohol and carbonic acid gas found inside the alimentary canal of vegetable eaters are factors in producing fatty ills.

Amaurosis, or partial or total loss of vision, from paralysis of the retina; and I presume most of my readers would not admit it is a masquerade of fatty degeneration. But such is a fact, and I do not feel at liberty to leave it out, notwithstanding the evidence is not so clear as in the other masks; and the conviction this is true is forced after long consideration, owing to the fact oculists assert amaurosis is mainly due to an excess of carbohydrate diet and that paralysis of the retina may be due to, and is part and parcel of, fatty degeneration. "According to some statistics," says Weir Mitchell, "out of one hundred and fifty cases of Bright's disease of the kidneys, fifty have retinal complications."‡

The complex structure of the eye being of terminal tissues where the circulation has to stop and turn back on itself, furnishes facilities for impeded or retarded circulations and renders it easier for paralysis to supervene than would be the case if the channels ran straighter; indeed the eye is often the first

* Micrographic Dictionary.

* Micrographic Dictionary, page 238, edition 1883.

† Editorial, *New York Medical Journal*, 1896.

‡ "Diseases of Women," Doctor McNaughton Jones, page 82, London, 1890.

organ to suffer from fatty degeneration, as oculists have shown.

Amyloid is a starch-like body or bodies, appearing and disappearing in the urine in the first stages of Bright's disease. The mammæ and the liver have at times been found to be almost wholly amyloid; the same bodies are found in the brain, and many imagine they are normal — definite evidence that the line of demarcation between health and disease is not always clean cut. People apparently in good health present signs of latent disease; and so amyloid degeneration may come under both conventional health and conventional disease; at any rate, from the close affiliation of amyloid with normal fatty degeneration I think it should be regarded as one of the early stages of the latter, from a clinical point of view, for I have found this estimate safe and useful. Treated as a fatty degeneration I have seen amyloid yield very readily and permanently disappear. Note, however, that care must be take to distinguish starch grains from amyloid bodies.

The consensus of all medical opinion, as far as known, is that angina pectoris is due to calcareous deposits in, or degeneration of, the coronary arteries; these deposits are of the nature of fatty degeneration of the circular muscular fibers of these arteries, and are made up of atheromatous matters, mostly cholesterine, which attain a hardness like stone; hence the term "calcareous." Lime deposits also occur along with the purely fatty, and their deposition also is probably due to the retarded and impeded circulation, and to the want of sufficient fluid in the system to keep the lime salts in solution. It is easy to see how fatty degeneration of the heart substance may follow the partial obliteration of the coronary arteries. There is mechanically retarded function, and likewise an element of neuralgia, which may be explained by the deposits diminishing the supply of nerve force because they partially cut off the normal blood-supply, and by a partial paralysis of the heart muscles because in their ill-fed condition the interval between the beats is not sufficient for rest and because they thus overwork. Overworked muscles are apt to have painful cramps, as in writer's and organist's paralysis; hence one cause of the choking pain, "angina," in the overworked and ill-fed heart muscles. Again, it has been reported, to anticipate a little, when facial neuralgia has been relieved by extirpation of the Gasserian ganglion or the infra-orbital nerve, that the ganglion and nerve have been found to be affected with fatty degeneration so frequently that this latter may be suspected to be a cause of the neuralgia, and that its treatment should be by Nature's own processes of metabolism rather than by the surgical changes wrought by the knife. I know of one case of surgical interference and removal of ganglion for facial neuralgia in which the pain returned in ten days and persisted until death. Why?

No surgeon could treat angina pectoris by extirpating the cardiac arteries or ganglia, but they can treat it through the interstitial and profound influences of proper nutrition, which obtain and reign in the most hidden, profound and vital parts of the body systemic. In order to give point and force to these words, the writer may be allowed to state that he has seen cures of this masquerade performed on these principles.

Aphasia is a term signifying loss of speech —literally dumbness; but medical language is flexible and does not mean that altogether, and it is employed rather to signify inability to use language fluently; it is the loss of a perfectly familiar word where the speaker knows what should be said but is unable to speak it. This in my opinion is nothing but a result of fatty degeneration of the nerve-ganglia centers in which is located the function of speech; and this degeneration is undoubtedly acute as well as chronic, while both are amenable to treatment by food, music, rest, and management.

Apoplexy is another very common masquerade. The essence of sanguineous apoplexy is when blood escapes from the cerebral basilar arteries, and is forced by vascular pressure into the substance of the brain or into the cerebral ventricles. It forms a clot, as blood usually does outside of live arteries, veins and capillaries, which clot by its abnormal pressure paralyzes usually the other side of the head or body more or less completely —sometimes pressing on the ganglia of the pneumogastric nerve and instantly producing death; at other times usually entailing a loss

of consciousness and motion, so that the erect subject falls as if struck on the head by a club or stone. But the real clinical, essential and exciting cause of apoplexy is the rupture of an artery by normal blood-pressure. The popular idea that apoplexy arises from an increased force of circulation has some foundation, but not the special significance that it arises from a weakening of the arteries by changing their substance partly into the flabby, soft, weak body of oil, lard, tallow, or grease. While it is true that an increased force of circulation is a casual element of apoplexy, it is truer that the degenerated artery gives way under normal heart pressure often during sleep, which is usually the quietest part of man's existence. To repeat, the essence of sanguineous and possibly of the serous apoplexy is a fatty degeneration. In addition, some writers state that the brain tissue around the diseased arteries is softened probably by the same degeneration, which if true only makes the claim stronger that this malady is a masquerade to be exposed by a better nomenclature if possible. The succession of apoplectic shocks or fits is explained by successive portions of the arteries becoming successively softened by the fatty degeneration progress, and giving way. It is merely a question of time, some parts degenerating sooner than others. The rational treatment of apoplexy should be directed to the diagnosis and removal of the fatty degeneration and the substitution of normal tissues.

In retinal apoplexy appear the same causative lesions as in cerebral apoplexy: The muscular coats of the retinal arteries are softened by fatty degeneration in some form, and the normal heart pressure ruptures the vessels; the ophthalmoscope diagnoses the extravasation and the clots in the retinal substance. Were the real lesion of retinal apoplexy not concealed by its name it would be better, for then relief would probably be sought in an endeavor to eliminate the predisposing fatty degeneration.

Arcus senilis, the senile ring of the cornea, is a milky circle about the periphery of the cornea of the aged, and should be regarded as one of the simpler fatty ills, though it has been cited in court as an evidence of insanity. While it may be found in cases of unsound mind, it frequently occurs in the eyes of the perfectly sane. The transparent glassy cornea is nourished by inhibition mostly; hence there is a difficult circulation and the easier occurrence of fatty degeneration when the powers of life begin to fail. "Arcus senilis" is consistent with health, good or otherwise, and is another example of the frequent inadequacy of language to express an exact condition.

Atheromatous deposits are masquerades, as they "consist of globules of oil of the most varied sizes, frequently exceedingly minute, mixed with albuminous matter in the form of amorphous masses or flakes and molecules, plates of cholesterine, and granules of carbonate of lime."* They are usually found in arteries, especially so in the aorta, and take the place of the lining membrane and the fibrous and muscular coats. Surely it is a fatty degeneration, and shows the kinship of the latter to calcareous degenerations. All are due to the same cause, retarded circulation by chemical and mechanical means. No one who has seen an atheromatous aorta can deny that the circulation must be retarded and impeded by the marked roughness of the interior of the blood-vessel that thus becomes a secondary cause. The term is derived from a Greek word meaning "groats," or meal; and may be applied to tumors which from the closure of sebaceous glands and the retention of the contents accumulate into masses sometimes as large as a hen's egg; this latter condition is not so much of a masquerade as the term is, when applied to arteries; but if the science of language exists to apply to things nouns which indicate their nature, then "atheroma" is a signal failure in these days of higher criticism.

Over forty years ago I was lectured to on Bright's disease of the kidneys, and I have studied it ever since and cannot but believe it is a masquerade of fatty degeneration. Its characters are determined by three signs which must be present as a general rule in the urine, at the same time or in successive periods of time, viz., albumen, casts of kidney tubes, fatty epithelia; besides these, free oil, amyloid and catarrhal discharges in the urine, apoplexy of the retina, arcus senilis,

---

*Micrographic Dictionary.

glaucoma and puffy eyelids may be present. Rarely is albumen absent; it should be recognized as present when the urine becomes only slightly hazy from the nitric acid and heat test. The idea of this disease being an inflammation, chronic or acute, of one or more kidney tissues is at least not a good clinical one. There is a necrosis and breaking down of parenchymatous substance sometimes wonderful to contemplate. Some fifty years ago I attended Warren Academy, Massachusetts, kept by Mr. A. K. Hathaway, who had Bright's disease. I remember well how he had uræmic coma in school hours—how he would lean back in his armchair against the wall, leaving dents in the floor which are visible to-day, I believe; how he would go to sleep during a recitation; how the boys would "catch on" to the situation and begin to break rules of order; how he would wake up suddenly and reduce things to quiet, even if he did shy a Virgil or Herodotus at a roguish boy's head! His case was treated for twenty years by my father, the late Doctor Benjamin Cutter, and among other things he used lamp-wick setons in the loins with much benefit. After death an autopsy revealed both kidneys as empty white lardaceous or tallow shells, less than one-quarter inch thick—the rest of the kidney substance was broken down and absent. How any one could live with so little kidney substance was a wonder to all, but the lesson taught was that the lesions were those of fatty degeneration, which softened the nephritic structures so that they broke down and disappeared in the urine, leaving the suet-like shell as evidence of the wonderful endurance of the human frame.

When I was a medical student at Harvard, Professor G. C. Shattuck spoke at length on Bright's disease, and employed exquisitely beautiful colored and life-sized French plates for illustrations. The gist of his instruction was fatty degeneration, but the good doctor never gave any clue to really curative treatment. It seemed to me then, as it does now, that the magnificent foreign monographs on disease were sadly incomplete. If any one doubts that Bright's disease is a fatty degeneration resort should be had to the morphology of the diseased kidney, and let the histological evidence settle the question.

According to our definition of fatty degeneration as due to a retarded and impeded circulation, it is easy to see how it can apply to the kidneys: The circulation in the papillæ, the Malpighian tufts, the urinary tubules, must be naturally somewhat impeded because of their tortuosity; there is constant excretory action and liability to overwork; the tubules are deprived of their epithelia — filled with casts, albuminous, fibrous, or waxy; the cells and tubules are loaded with fat globules or with waxy matter or amyloid,—all of which make things worse by mechanically obstructing the circulation of blood and urine. The loss of albumen from the blood and the retention of urea tend to weaken the system and retard the circulation more.

That paralyzing foods have something or much to do with the retarding of the circulation and keeping up of the fatty degeneration has been often proved to me, and to others, by the results accruing upon the withholding of and substituting a diet that would not induce these paralyzing effects—a diet that would be assimilated with the minimum expenditure of vital force, and yet furnish the maximum of potential energy to the system. This history is almost uniformly the disappearance in a shorter or longer time of the albumen, casts, and fatty epithelia, one or all, and by their reappearance when the paralyzing foods are eaten again. To be sure these results are affected by the way in which the patient expends life force. If wasted in work, worry, or pleasure of body, soul, or mind, the abnormal morphologies will be longer in disappearing, or may not entirely disappear; or if they have disappeared, under the above losses of vital force they will reappear, even if the food is all right, and more rapidly if the food is all wrong. A cheerful disposition aids the circulation.

Acute Bright's disease I have known to disappear in less than a week by following this line of treatment, but it may require two or three years in chronic cases.

Bright's disease of the lungs is another fatty masquerade. Some years ago an eminent physician asked me to see a patient with consumption, who had had the best local and metropolitan consultant talent—at

the rate of six hundred dollars a month for the latter; she was in bed, feeble, pale, coughing hard, emaciated, with rather violent heart action, and night sweats; physical signs of lesion of left upper third lung front; hæmoptysis severe. Sputum with granular and crystalline triple phosphates, giant mucous corpuscles filled with gravel; no lung fiber; blood did not show the morphology of consumption. Urine, hyaline with fatty casts of the kidney tubules and fatty epithelia; albumen to one-half the bulk of specimen—thus evidencing fatty degeneration of kidneys as well as of the lungs, for the blood gave no evidence of consumption. On mentioning this to the late Doctor Louis Elsberg, he remarked the Germans recognized a Bright's disease of the lungs; and he agreed with me in diagnosis on this description. Certainly there is no good reason why lungs should not fattily degenerate as well as any other organ, nor why Americans should not adopt this form of disease in their nosology; had the other medical gentlemen who saw the case not been satisfied with the lung lesions as a sufficient cause they would have explored the urine and got the same striking and positive result! This is a lesson, and teaches one should never take a chronic case without exploring the morphology and chemistry of the urine; indeed this is a far better means of daily testing a case than the study of the pulse or temperature.

Ruptured or broken heart and fatty heart are not uncommon. Once I was summoned in greatest haste to a lady very ill. She was dead before I arrived at her home, and an autopsy revealed rupture of the left ventricular posterior wall, a pericardium filled with blood, and the muscles undergoing fatty degeneration. With as good reason as exists for cerebral apoplexy this might have been called cardiac apoplexy, for there was the same giving way of the muscles from fatty degeneration, the same extravasation of blood, etc., but with death from loss of blood, not from its pressure, as in some cases of cerebral hæmorrhage. When the heart muscle is fatty it is liable to break at any time without unusual effort, as in the case cited. The possibility of producing fatty degeneration in phosphorous poisoning in so brief a period as twenty minutes should be remembered. Possibly phosphorus interferes with capillary and interstitial nutritive circulations, so as to cause degeneration.

The changes of nutrition in our bodies are far more rapid than usually surmised. If the chalky, friable textures of dentine can be changed to firm normal fibrous texture in three months' time (as has been reported), why not more rapidly in the softer tissues? It is a remarkable fact, one I have often noted, that when cases of fatty heart are treated on the principles here laid down, I have seen the normal loudness of cardiac pronunciation reappear in the course of a few weeks, not to say days. Give Nature a chance and she will replace fatty cardiac muscles with healthy ones!

Catalepsy is also, I think, a masquerade, as in my experience it frequently presented all the signs of fatty degeneration—*i.e.*, oil in the blood, fat in leucocytes and albumen, amyloid casts, and fatty epithelia in urine; also cystine in the blood, this traced to the eating of forbidden yolks of eggs; there was also vaginismus, uterine anteflexion and hyperæsthesia in one case. The fact that local treatment—*i.e.*, reposition by uterine sound—with vaginal and intra-uterine iodoformization and general treatment of fatty ills as here laid down, were followed by a cure of catalepsy in three months' time and of the abnormal signs in six months, save fatty epithelia which disappeared months later, certainly justifies the mention here of catalepsy as a masquerade of fatty degeneration.

APPENDICITIS.*

BY J. H. CARSTENS, M.D.

This to be sure is a hackneyed subject and much is written and said about it every day; still, as long as mistakes are made in diagnosis, and rational treatment not used, it will do no harm to again bring up the subject.

The symptoms are: Sudden pain in the abdomen, often referred to the stomach or around the umbilicus, sometimes but not always accompanied with vomiting, and sometimes ushered in with diarrhea, although often

*Read before the Michigan State Medical Society at Grand Rapids.

the bowels are constipated and move with difficulty. The pain is severe and colicky, and if not from the onset, in the course of twenty-four hours, is localized in the right inguinal region, remaining there; is most intense until rupture has taken place, when it again becomes more or less diffused. A chill is sometimes noticed, but not often; generally a sudden high fever—102°—which then subsides more or less. In many cases, even those quite severe, the temperature does not go above 99° or 99.5°, although from experience I would say that in the majority of cases the fever gradually rises a degree a day. The pulse varies like the fever, reaching 90, 100, and even 110. There is great muscular rigidity over the region of the appendix, the well known McBurney point, and great muscular rigidity at this part of the abdomen. Hence, the fever alone—nor the pulse, or severity of the pain—is of no positive diagnostic value; all must be considered together. But if there is severe tenderness over the region of the appendix, with muscular rigidity, one can hardly go astray. As peritonitis is caused ninety-five times out of a hundred by appendicitis, no mistake should be made here; the passage of renal calculi is sometimes very puzzling, but not accompanied by fever; a right pus tube is sometimes difficult to distinguish, but conjoined manipulation should clear up the diagnosis; invagination, etc., of the intestine is generally characterized by a swelling or tumor; in rupture of gall-bladder the history in general is different, also the pain, which is located somewhere else; extra-uterine pregnancy is accompanied by great collapse; the onset of typhoid fever is slow—in short, every intraperitoneal trouble might be mistaken for appendicitis, and I can only repeat what I have so often stated: No matter what the diagnosis in abdominal troubles is, look again and see if a mistake has not been made, and if it is not after all *appenaicitis*. Nine times out of ten it is, in all acute cases.

The passage of seeds, pieces of bone and other foreign substances finding way into the appendix was formerly considered the inevitable cause of appendicitis, but since frequent operations have been performed it has been found this is very rarely the case,—personally, in not five per cent. of cases have I found a grape or orange seed, cherry stone, or other foreign substance. All that is discovered is a hard fæcal concretion, so that I am inclined to think that constipation has more to do with the production of this malady than anything else, although I have had a number of cases where direct injury over the region of the appendix seemed to be the starting point. No matter what starts it, it is found to be a bacteriological trouble: There is first an ulceration of the mucous membrane and of the appendix that extends through the muscular coat and finally the serous coat; perforation takes place and the contents escape into the peritoneal cavity; sometimes, before complete rupture has taken place, there seems to be a transudation of serum containing bacteria around the appendix. The particular germ is always the bacterium coli communis, though sometimes is found a mixed infection of streptococci, and quite frequently that most intense odor caused by the bacterium pyogenes fœtidus.

Before the cause and pathology of this disease was thoroughly understood, when it was considered simply an inflammation and called perityphlitis, etc., poultices were applied over this region by some, ice by others. I do not know which is the best, simply because I believe neither ever does any good. The cooling coil or the ice-bag with some patients seems to be very soothing, and I see no objections to using it; others think heat relieves better; but poultices are the dirtiest, vilest things to apply, besides being very troublesome, requiring to be frequently changed; as a rule a hot water bag is far more grateful, may be renewed every five or six hours, and accomplishes all the purposes of the nasty poultice. Internally, morphine to relieve the pain, quinine for the fever, and, according to the condition of the bowels, sometimes a cathartic in the early stages; if the stomach is very irritable, soda, bismuth, and such remedies. Occasionally, when the pain is intense and the patient very restless, I think a dose of morphine is justifiable, but I would discourage its use as much as possible, as it masks the symptoms. A few weeks ago I operated upon a lady for whom the physician had prescribed codeine; he had diagnosed appendicitis, put on an ice-coil, and thought it would be a very light attack; the temperature was only 100°. The codeine was in

solution, and he ordered a grain when the pain was severe. This amount was taken every hour; her bottle was renewed at the druggist's, and her sister stuffed her with it, so that she had twelve or fifteen grains per day, unbeknown to the doctor. She had absolutely no pain, felt finely, and imagined she was getting well fast. When the doctor called on the morning of the second day she presented a temperature of over 103° and a pulse of 140; and he then told her that the appendix had ruptured, that she was in great danger, and sent for me. When I saw her she told me how well she was feeling. She had absolutely no pain; the abdomen was perfectly flat (she is a lean woman); there was no tenderness over the region of the appendix; and when I told her she was suffering from blood-poisoning and in danger of dying within twenty-four hours she could hardly believe it, because she felt so well; but I had no trouble in getting her to the ambulance and transferred to the hospital, where I operated within two hours. A most careful examination was made, but no swelling or exudate could be detected in the region of the appendix; still, with unbounded faith in the correctness of the diagnosis, I had no hesitancy in cutting down, and as expected found a ruptured appendix with about two ounces of pus surrounding it. It was carefully removed and a drainage tube inserted, and the temperature dropped to 100° within two hours; in ten days she was out of bed, and the twelfth day she was home again. There is only one treatment that is correct, thorough, and will give the best results, and that is an immediate operation and removal of the appendix with drainage.

I admit that there are cases which get over the first attack and never have a second; but who will pick out the cases? About fifteen per cent. I think will never have a recurrence, but if these even are operated upon they will recover just as well, and will have forever removed the dread of a recurrence. If a person has a second attack I think every one agrees there is hardly a question that they will have a third, fifth, or tenth; so if there is any justification in not operating on a case the first time, hoping that it will be the only attack, there is no justification in not operating upon the second attack, or the third attack, or the fourth attack. Rupture will take place some time (I have seen it occur with the twentieth and twenty-fifth attack), and after this has occurred the danger is far greater than if they are operated upon the first or second day before this accident takes place.

Some advocate treating medicinally, and operating only after the acute symptoms have subsided; but patients will not submit to operations then, and I do not blame them —they think, once they are over it, they will take the chances—wait until they get another attack; and when the latter supervenes, the thought occurs it may terminate in the same fortunate way. They say that until it is too late. I have seen cases which seemed very mild, when I myself advocated non-interference, that within twenty-four or forty-eight hours were beyond all help. I have advocated non-surgical interference a number of times, but I now think I was wrong,—I have sinned, but will not do so again. As soon as I diagnose the trouble I will insist upon prompt operation, for I know the danger is very small, and if they will not submit it is not my fault. I will never be a party to procrastination, and people will nearly always submit, especially in the city, where they hear and read a good deal about it; but it must be admitted that country doctors have a good deal of trouble in convincing patients of the necessity for an operation; but even here the brilliant light of abdominal surgery is beginning to dawn. The country practitioner and the people are beginning to recognize the value of prompt surgical interference in these cases. If the country doctor cannot undertake the operation himself, he can always get assistance within a few hours from the large medical centers,—even though the people are poor and cannot pay any fee, they can be easily carried on a stretcher one hundred miles or more to a hospital, where they can be operated upon, surrounded by all modern appliances. Only last Wednesday a patient was brought to me a distance of one hundred miles, on the first day of a second attack. His physician had told him that if he had a second attack he would have to go to a hospital and be operated upon, and he brought him on the train without any trouble. He was received by the ambulance

at the station, transferred to the hospital, and within an hour the appendix, which had already ruptured, was removed, and a drainage tube inserted; the next morning his temperature was only 99°. He has made an uninterrupted recovery, although at the time of the operation he already had a good deal of general peritonitis. That man, beyond any question, would have been dead to-day but for the prompt, energetic action of his physician. He was poor, but could manage to pay his railroad fare and $14 for two weeks' board in the hospital, the surgeon operating for glory and love of the race. It is these cases which teach us a great lesson.

Those surgeons who advocate operating between attacks naturally have splendid records, because the patient hardly ever dies. But what about those cases who die during the attack—dozens and hundreds of them die, but they do not figure in statistics. Those of us who give every poor devil a chance, no matter how difficult the operation is, have it thrown up to us that so many of our cases die, and it seems hardly fair or honest. If one would honestly report each and every case, and there could be found one hundred cases of all kinds, mild and severe, treated medicinally only, there would be found a pretty large death-rate. To treat the mild cases on general principles and then turn the severe cases, when they are *in articulo mortis*, over to the surgeon is not fair, because his mortality must be large, although even with these most desperate cases a large percentage would recover if the patient has any vital force left.

I admit that the operation for appendicitis is not an easy one. It often seems easy, but it has taken us all this time to learn, and we have had bitter experience. As my friend Morris says: "It is sometimes better to trust the bacteria and the *vis medicatrix naturæ* than to trust the surgeon; but if an experienced surgeon, with a thorough knowledge of the technique and with facilities at hand, you had better trust the surgeon."

I must reiterate that the only correct treatment is prompt operation, and the only excuse for omitting it is no one capable to perform it, or no facilities therefor at hand. But with the transportation opportunities of to-day an operator and facilities can almost always be found within six to ten hours, and the patient can be saved. In this kind of cases there is no trusting to luck,—it is too serious a matter, this trifling with human life, and does not moreover do the patient justice. Some may call it "*furore operativus*" and poke fun at the abdominal surgeon, but is he not fulfilling the Hippocratic oath that the highest ultimate good to the patients shall be the constant endeavor?

Detroit, Michigan.

A COMMON CAUSE OF LOOSE BODIES IN THE KNEE-JOINT.

BY W. M. ROBERTSON, M.D., B.SC.

It is my intention to direct attention to the ætiology of loose bodies in the knee-joint, giving special attention to their origin in the more common joint lesions produced by trauma, according to the teachings of Arbuthnot Lane of Guy's Hospital, London. This conflicts in some measure with the commonly accepted theory that these loose bodies usually arise from the separation of synovial fringes. But it may be observed that loose bodies in the joints other than the knee are rarely met with; and this is of significance as bearing on the traumatic origin of the malady, inasmuch as the anatomy and position of other joints render them less liable to injuries by violence.

Like all hinge-joints the articular surfaces of the knee are best protected when they are in a state of extension. In flexion of the knee the articular surfaces of the tibia, covered by intra-articular cartilage, glide backward on the femur, exposing the articular surfaces of the condyles; the patella falls more and more into the intercondyloid notch of the femur and forms a great protection, but on account of the greater length and prominence of the inner condyle the patella glides more and more toward the outer side of the joint, leaving unprotected a large portion of the articular surface of the inner condyle.

In falling the knee is usually flexed and thrown forward, with the thighs abducted in such a manner that the unprotected inner condyle is more liable to injury by direct violence than any other part of the joint,—not only because it is unprotected, but in the

position of abduction these parts, being most prominent, strike the pavement first.

About 1885 Mr. Lane read before the Royal Society in London a paper on "Rheumatoid Arthritis, So-called," in which he argued that loose bodies in the knee-joint very rarely occurred as the result of the separation of synovial fringes caused by a rheumatic condition, but on the contrary they are almost invariably caused by separation of portions of cartilage from the articular surface of the inner condyle of the femur (in these cases the violence to the articular surface is sufficient to devitalize the area), caused by a dry necrosis that is the sequel of direct violence.

Although Mr. Lane had demonstrated this many times before, bringing it to the notice of the profession, he obtained but little credit therefor from older surgeons, and although he has brought it before various societies a number of times during the past ten years the older ætiology still obtains general credence. To bring more clearly before the reader the actual condition I report the following case:

A. B——, a strong and healthy teamster, 21 years of age, who never had a serious illness, was admitted to Guy's Hospital in February, 1896. About six months before this appearance he complained of pain in the left knee, and an acute synovitis developed with the usual swelling and effusion. Resolution took place and the knee apparently recovered; but on returning to work it was not long before the knee again became painful and continued more or less inflamed up to admission to hospital. The only symptom pointing to a loose body in the joint was an occasional locking of the knee, and this had occurred but a few times. The joint was slightly enlarged and tender on pressure. The case was diagnosed by the attending physician as one of rheumatoid arthritis, and surgical interference advised.

On careful questioning it was found that in February, 1895, he sustained a fall, striking on the left knee, causing pain and slight lameness which passed away in a few days. Mr. Lane's observation satisfied him the condition was induced by this fall; that the accident caused the articular surface of the inner condyle to suffer such a blow that a certain portion of the cartilage had been devitalized, when nutritive processes at once ceased; the area became affected by a dry necrosis of cartilage, which for a time usually remains *in situ*, but sooner or later separates from its position and becomes a loose body in the joint.

The joint was opened by a long incision over the inner anterior surface, exposing the articular surface of the inner condyle to view. As was expected, a portion of the cartilage was absent, leaving a space about seven-eighths of an inch by one inch in area. The missing portion was sought for in the joint; one piece was found, but not sufficiently large to cover the area; a second piece was found, but the two were not large enough; a third and fourth were found, and all together were insufficient; finally, after diligent search, a fifth portion was found, and by placing it with the other four it was found that the surface could be covered. The wound was closed and the patient recovered.

The clinical history of such a case is easily understood and supports the position of some of our most prominent surgeons. Doctor Park, in his work on Surgery, says "In joints that have been free of disease loose bodies are invariably the result of trauma," the point of difference being the exact origin of the bodies.

It is true that floating bodies may originate from direct violence to, and dislocation of, the semi-lunar cartilages of the joint, but it appears that such cases are much less common than those resulting from dry necrosis of the upper articular surface.

It is evident that tubercular disease of the joint may develop when there is a chronic arthritis existing on account of the presence of loose bodies, and so give rise to the typical tubercular condition and the presence of the rice-like bodies.

If the results of experiments on the cadaver by some of the greatest physiologists are accepted, it must be admitted that some of the common origins usually referred to in the text-books are very improbable. Most cases would be included in the following classification:

Those resulting from trauma, either direct violence to the inner condyle or injuries to the semi-lunar cartilage:

Those resulting from diseased joints chiefly of a tubercular nature.

The treatment of all cases of loose bodies in the knee-joint should be *removal*. The joint should be freely opened and the greatest pains taken that no particles are left in the joint. The surgeon is not justified in

attempting to transfix the bodies or to attempt to remove them through a button-hole incision. It is frequently found necessary to pare the edges of partially dislocated semilunar cartilages.

Warren, Pennsylvania.

THE CARE OF A GRANULATING SURFACE.*

BY HERMAN H. SANDERSON, M.D.

The process of repair in a tissue by second intention or granulation has received much less notice than that ideal and much talked of method of primary union for which the surgeon always strives, and yet it is of little less importance to us when we consider the great number of cases with which we have to deal, which through faulty technique or unfavorable surroundings fall short of the ideal, or in which from the very nature of the wound itself and its situation granulation is the only method by which healing can take place.

Granulation tissue is but the scaffolding temporarily erected by Nature which in time becomes transformed into connective tissue to make up the loss sustained by the injury. As soon as the injury or irritant has spent its force a layer of lymph is thrown out, which shortly becomes permeated by the white blood-cells rushing in to fill up the gaps and combat the irritant. The neighboring capillaries distend and send out little loops and branches to nourish the new matrix. Around each loop the cells collect, forming little elevations, each with a little red center, from which they take their name "Granulation." These cells in dying give place to the fibroblasts, from which in turn the scar tissue is formed.

The surface of the granulation tissue is then at all times bathed in a semi-fluid pus varying in amount with the irritation to which it is subjected. Here is where the indications for treatment are most clearly pointed out, which if we carefully note will give us most material aid in the management of the granulating surface.

Ever since the principle of antisepsis has been universally recognized as indispensable to surgery, there have been many things perpetrated in its name which were never intended to form part of its practise as indicated by its author or his intelligent followers, and in our overzealous desire to be thoroughly antiseptic we very often retard the very process it is our intention to promote, and by the use of the stronger antiseptic measures we destroy the newly formed and delicate cells which Nature has taken such infinite pains to produce; and since it is essentially a physiological process we can only aid her by carrying away the refuse cast off in the building up of the structure, following the principle of asepsis, or in other words simply keeping clean.

There have been so many methods advocated and so many agents recommended, each with its special advantages in the hands of its advocate, that it would be unwise to discard any so long as they follow the essential principles in the dressing of the wound.

The wound and surrounding tissues must first be freed from all foreign substances which can be removed without injury to the remaining tissue, and from all bruised tissue which is likely to die, drainage provided for any sinuses or pockets it may contain, and then thoroughly washed with an aseptic or mildly antiseptic solution. Sterilized water or mild salt solution answers as well or better than other solution for the first dressing, unless the wound has become infected from an outside source, when a mild antiseptic solution is indicated. The next and most important point is the dressing, and that will be the best which will carry away, first, the blood and serum, and later the pus to be discharged from the wound, which would otherwise accumulate and form a nidus for the ever present bacteria of an open surface.

To be more absorbent it should be moist, and moistened with material that will not harden in a short time and cause retention of the products under the dressing. For this purpose an oily solution carries out the indications better than anything else, and the much used Balsam of Peru and castor-oil dressing gives good results. It is mildly antiseptic if the balsam is used in sufficient proportions, but too strongly so if a too strong solution of the balsam is used. The

*Read before the Windsor (Ontario) Medical Association.

five-per-cent. solution is the one in most common use. This should be spread on sufficient gauze and absorbent cotton to hold all the discharge, and should be covered with rubber tissue or other waterproof material to prevent the formation of a moist tract from the wound to the surface.

This method not only insures continuous and perfect drainage, but keeps the edges of the wound soft and pliable so that the remaining scar will be soft and have the minimum amount of contraction. It has the additional advantage that the wound need not be dressed so often, as the surface is continually being sponged by the dressing. This is a material aid in cases that cannot be dressed every day, for the moment the amount of discharge on the surface becomes excessive the whole process of healing is at a standstill, and if allowed to remain destroys the new tissue formed. Perhaps the most common form of dressing is that of dusting over the surface of the wound with a dry powder, such as the classical iodoform or one of its many substitutes, each of which claims some special feature to recommend its use in preference to the other. The use of any powder in quantity over a discharging surface is open to the same objection as the dry dressing, for while it dries the surface and is absorbent for a time, it soon forms an impermeable coating with the discharge with the same fatal results to the wound. This objection may be overcome in a measure by using a moist dressing over the powder, thus securing the drainage; and in those irritable wounds when even the contact with the dressing is painful a mild powder creates less irritation than any other dressing. The use of powder in a sinus or cavity cannot be too strongly condemned, and the common practise of filling a suppurating ear with powder is especially dangerous. Not to speak of the peroxide of hydrogen would be slighting a very useful agent in the disinfection of cavities and sinuses. It has become a great favorite, partly because its action in oxidizing the poisonous products is visible; but it is too powerful to be used undiluted, and unless the oxidized matter left on the surface be washed away it again forms a good medium for infection.

One of the very best agents and one of the commonest we have as a surgical dressing is dilute alcohol. It is an excellent antiseptic and its dehydrating qualities make it especially useful on moist surfaces, and its searching qualities are not excelled by the peroxide, while it exerts a much more wholesome influence on the surrounding tissue. As a solution for instruments it is perhaps the best, as it is non-irritating, non-corrosive, and the instruments can be easily dried when removed from the solution.

While this represents the ordinary care of a granulating wound in a healthy subject, there are other cases which require special mention. The pale, flabby granulations in the wound of a tubercular patient, or in one whose vitality has been exhausted by long continued suppuration, indicate the poverty of the circulation, and means should be adopted to improve the constitutional condition and aid the circulation of the part. Where the part can be elevated above the level of the rest of the body the circulation is very much assisted by the more perfect venous drainage and a new impetus is given to the overtaxed vessels. Exuberant granulations are treated by pressure applied with the dressing, by the knife, or astringent applications. Of the latter the nitrate of silver has been most freely used, but its superficial action makes it useless where a considerable mass is to be removed, and by its specific influence on the vitality of the cell the granulations are quickly renewed.

The wound which has become infected of course demands scraping away of the poison tissue so that every vestige of the tainted matter be removed or destroyed, that the wound may be surgically clean. Here again, as in all other wounds, absolute cleanliness will be our only salvation and the only rational method by which we can aid Nature, for never does cleanliness approach quite so near godliness as in the realm of surgery.

Windsor, Ont.

ASEPSIS VERSUS ANTISEPSIS.

BY E. B. WARD, M.D.

The difficulties, dangers and trials attending antisepsis as attempted, if not perfected, in rural practise is so well delineated by

Doctor L. C. Bickford in the MEDICAL AGE of March 25th last that it cannot but amuse and interest every reader, especially those who like myself have passed the ordinary meridian line in country practise.

Yes, the delights of a life in a country village, distant from any professional aid, compelled in all cases to rely solely upon self, are numerous but of mild type. Antiseptics were unknown and uncared for, and the patient was compelled to put his trust in God and take his chances betwixt death and the doctor.—No more so, however, than now perhaps, but the disability was more felt by both parties. The juvenile practitioner of to-day is pushed out from his *alma mater* armed with a sheepskin and an immense amount of cheek and assurance; he is in fact a most dangerous microbe, in whose unscrupulous wake I have seen death follow with a persistency fearful to behold. Doctor Bickford's case, however, reminds me of many similar transactions in my own history, a few of which I recall barring the antiseptics.

Case 1.—John C——, aged 30, farmer, was thrown from a mowing machine so that his left hand struck the ground in front of the knives, and before the machine could be stopped the forearm was amputated above the wrist half a dozen times perhaps; when he arose he picked up the severed hand and held the spouting arm aloft as he shrieked for aid. Help soon came, and after ligating the arm he was carried to the house. The call found me nearly helpless with a periodical "sick-headache" that has tormented my life since childhood, but there was no escape; so as quickly as possible I reached the patient, four miles away. The day was torrid, but the patient took the matter coolly and was soon under chloroform.

Meantime my instruments—*clean ones*—were placed in position. It so happened the carbolic acid had been left behind, and there was no hot water even, but my head allowed no such little matters to interfere, and I proceeded to amputate the forearm at the lower end of the upper third in shape for an artificial attachment, and had the job completed in twenty minutes from time of first incision. Then applied cold dressings. To shorten the story, the wound healed without a drop of pus, and I removed the stitches the sixth day.

Case 2.—Alonzo R——, aged 21, while in the woods standing on a tree he had just felled, was foolish enough to stoop over and cut a smooth-bark maple sapling, which the tree felled had in its flight bent down in a pen-shaped manner. In the rebound the smooth, sharp-pointed edge left by the ax caught his face and cut a gash like the slash of a knife; it extended from the alæ of the nose near its left upper margin, up through the entire length of the organ, cartilages, bones and all, dipping down into the center canthus of the right eye and extending well over the forehead.

When I saw him he looked as if he had been to a "wake." His face seemed to spread over a great deal of surface, for the wound gaped frightfully, though it presented an improved appearance after being sponged out with cold water. But he wasn't out of the woods yet by any means. By carefully pressing the nasal bones together his face became less expansive, though I assured him that he would never be a handsome man again, and that I afterwards found was his pride. The stitches were put in with care and without difficulty, save those at the canthus. The parts were closely coapted and cold water dressings applied, which he was directed to continue on his arrival home and to keep applied till I came over to see him.

For some reason or other I was unable to see him until the third day, when I found the wound healed by first intention throughout its entire length—not a show of pus anywhere except where the stitches were softened, and I therefore removed the latter. Carbolic acid was the only antiseptic used; and right here let me add that if you should chance to meet him, being ignorant of this circumstance, you would fail to discover any scar or disfigurement of countenance.

Case 3.—Mrs. B——, aged 37, had scirrhus of left breast requiring amputation of the entire gland. She was more timid about the chloroform than of the knife (non-sterilized), but went under it very nicely, and in thirty minutes the operation was completed, the wound closed, and cold carbolized water dressing applied. It healed by first intention in four days, and there has been no return of the disease during fifteen years.

Case 3, I may add, was only one of several operations of the kind made by me, and with one exception all healed by first intention to a greater or less extent, except one where the patient was utterly unable apparently to take food of any sort for several days, but when the stomach took on its function the wound healed immediately.

Similar cases I could relate to a tiresome degree, all dressed in the same manner, but I will add only one more.

Case 4.—Samuel F——, aged 45, farmer, was caught on the horns of a vicious bull in the region of the trochanter major and flung over the animal's head, tearing a gash down through the skin, muscles and fasciæ nearly to the internal condyle. It was a ragged wound, but after cleansing it thoroughly with carbolic acid and water, bringing the edges in close coaptation, and bandaging as closely as possible, it healed by first intention throughout its entire length, and he was riding on a reaper—the accident occurred during harvest time—at the end of a week.

In all these cases no antiseptic was used; just simple asepsis and as much of it as we could get. In fact, I never used the bichloride in surgery or obstetrics—of which last I have had more than the average—and probably never shall so long as I can say with truth, as I can now, that in forty years active practise I have never lost a case of confinement at any term of pregnancy, or from any of the diseases to which lying-in patients are subject. Further, though my surgery has been somewhat limited, I never lost a case as the result of an operation.

The immortal Moses Gunn, who was Professor of Surgery during my college days, was wont to tell his classes a story about sending an assistant to dress a short cut in the face made during class clinic the previous day, who returned very shortly and said that "the d——d thing was healed." "Impossible!" said Gunn. "Fact," said the other; "*I tried to pull it open!*"

A similar operation and for the same disease came into my hands a year or so ago, which was healed in four days and perhaps sooner, but that was the first time I saw it after the operation. It is wonderful what astounding cures Nature will sometimes perform with the aid of knife or of drugs, and *sometimes in spite of them!*

In conclusion allow me to say that as the years roll by I find myself prescribing fewer and fewer drugs, attending more carefully to the toilet, so to speak, both of the patient's mind and body, and in some sort of hypnotic way carrying them along on the road to health. At the same time I would not belittle the importance of strict hospital sanitation. There is a vast difference, however, betwixt hospital and country practise, and what could be tolerated with impunity in country air might be dangerous in hospital ward. "God made the country and man made the town" is an old adage, but it will scarcely account for the difference, except perhaps to the aggregation of patients in eleemosynary institutions. This latter would seem to afford a valid argument against the recent rapid increase of such institutions throughout the land, but of late the aspiring doctor seems to covet notoriety in preference to knowledge.

And now let me say in a quiet way that these statements are true whatever you say, and so long as the *vis medicatrix naturæ* still serves me so well I shall stay by the same instead of depending on medical crutches to enable my patient to escape Death's clutches.

Laingsburg, Mich.

EAR-SUPPOSITORIES.

The *Therapeutische Wochenschrift* lauds ear-suppositories as proposed by Radlauer, "composed of cocaine, menthol, resorcin, cacao butter, olive oil, and cotton-wool to prevent the escape of the same as they dissolve." Lasser also highly recommends them inasmuch as they "save the introduction of the various drugs separately. The patients can insert themselves if necessary to save time and trouble."

Finally is added "that they are designed to heal inflammations, to soften accumulations of wax, to prepare the ear for operation, etc., and are made two sizes for children and adults."

The fact they will prove incomparably nasty, and an aid to the accumulation of more filth, appears to be entirely overlooked. No Anglo-Saxon aurist would for a moment put up with any such preparation, since nothing is gained that cannot be effectually accomplished by more cleanly methods, and the latter do not invite an amount of unnecessary labor that otherwise must supervene.

We have no doubt, however, that these will take among a certain class, inasmuch as they are "made in Germany."

THE MEDICAL AGE.
A SEMI-MONTHLY REVIEW OF MEDICINE.

—PUBLISHED BY—
GEO. S. DAVIS, Medical Publisher, Box 470.

All communications regarding papers, reports, etc., should be addressed to the Editor of the MEDICAL AGE, P. O. Box 470, Detroit, Mich.
Matters relating to advertising space, etc., to be addressed to the publisher, Geo. S. Davis, Box 470, Detroit, Mich.
The editor cannot engage to return rejected manuscripts or to correspond with the writers thereof, unless such are accompanied by sufficient postage.

DETROIT, MICH., JUNE 10th, 1897.

Editorial.

THE CLERICS AND PHYSICIANS.

(II.)

Circumstances demand a return to this topic, although it was pretty thoroughly exhausted in the last issue of this journal.

Supposedly a clergyman writes an editorial in the Detroit *Sunday News-Tribune* as follows:

> There is a custom among physicians to treat clergymen's families gratis, though the custom is by no means universal. Two factors have contributed to the rise and growth of this custom, and one of them has not disappeared and probably never will The first cause was doubtless the universal respect in which the sacred calling of the minister of the Gospel was once held. The service of the doctor is almost wholly a personal one, and unlike the goods of the merchant has cost the doctor no pecuniary outlay. Consequently the service of the doctor can be given without charging it up to profit and loss. In other words, it could well be "afforded" in a business sense. The common desire to do a kindness to the minister was gratified by the doctors of old by keeping him on the "deadhead" list.
>
> But there was really a better reason than this, for the average clergyman has never enjoyed income enough to pay doctors' bills. . . . The average clergyman is and always has belonged to the class called "poor." The full charges cannot be collected from him. He cannot pay them. Consequently the loss of faith and the lapse of respect for the profession as sacred in modern times have not operated to bring the clergyman from the free list to the payers. Doubtless if they could pay, pay would be oftener demanded nowadays because a growing number of doctors do not care a rush for the respectability or the sacredness of the calling, and do not care to compliment the cloth by making any sacrifice. Clergymen are usually persons of refinement whose poverty is in a sense voluntary.

This individual next goes on to say that this attempt before the State Medical Society "best illustrates the tendency of unions and associations to meddle with *private liberty*."

We never knew that mendicancy was *private liberty*, and if it is, it oftentimes is not as respectable as the calling of the *chevalier d'industrie*, which after all is the same in another form.

We give the *argument* for what it is worth; the balance of the communication is devoted merely to vituperation of medical men as a class and of the gentleman who introduced the resolution regarding the paying of doctors' bills by clergymen at the recent session of the Michigan State Medical Society. It is somewhat amusing that the individual who manifestly arrogates to himself the title of clergyman endeavors to pose as a person of "refinement" to whom is due "the universal respect" of a "sacred calling." To begin with he deliberately misstated the proposition, and winds up with the statement that the resolution was turned down; at the same time generating a suspicion he is honestly owing some bills he has repudiated.

As a matter of fact no profession in the world gives more of its time and money to humanity, or is a greater contributor to the spreading of religious works and other benevolences in proportion to its means, than the medical profession. The habit of receiving gratuities among any class of wage earners always tends to lower the standard of manliness and self-respect, two attributes the correspondent to the *News-Tribune* is eager to repudiate for himself.

We agree with the writer in the declaration that the day of "universal respect" for men professing to be clerics has passed. The fact is, the entrance of just such individuals as himself into the sacred calling has rendered it necessary that the clergy be no longer judged by the color of their coat, by an artificial walk and voice, or by a white tie; they must be judged individually upon their intrinsic merits or demerits as men; for their respective work as scholars; for their abilities to uphold the character of gentlemen and honest teachers of the doctrines they profess. This very communication to the *News-Tribune* is the best possible evidence

of what constitutes the clerical charlatan, and of what the true cleric *is not.*

The statement "the service of the doctor is almost wholly a personal one, and unlike the goods of the merchant has cost the doctor no pecuniary outlay" is so wilfully and notoriously false that it cannot be even excused by any plea of ignorance. In these days the reputable physician is in evidence, and the doctor "eddicated by the hand of the Lord" or "natural born" is a rarity. The calling of medicine, if the individual is fitted therefor, means that he has undergone an expenditure of several thousand dollars, with no return for three or four years at best, and more often not for a decade; indeed, his best years are sacrificed to the profession before it begins — if it ever does — to afford him requisite pecuniary return upon the original outlay.

To-day, four years of study is demanded to make even an average doctor; the United States census, however, evidences that the denominations who make clergymen without education or any form of special training are very much in the ascendant; we know also that few who enter the pulpit ever expend half what is required of the doctor in fitting themselves for clerical work. Again, more than two-thirds of those who enter the ministry of these denominations and profess to be educated, obtain the little knowledge they possess by being pauper students at pauper schools; the latter are supported by begging, the former by mendicancy. Recently it was discovered that the senior class of a sectarian college not a thousand miles away numbered thirty-two individuals, thirty-one of whom were ostensibly studying for the ministry, and *twenty-nine* were supported by societies or clubs established for the purpose within the denomination. Beginning life as mendicants, it is little wonder that they end by being hypocrites.

What medical college is there in the broad extent of North America that was ever founded for impecunious students, supported by begging, and that likewise provides a beggar's fund for mendicant pupils? If there is such an institution it is full time it was known.

Again, this individual asserts that the "average clergyman has never enjoyed income enough to pay doctors' bills." Was ever such a specious plea offered? The income of the average clergyman is more than that of two-thirds of the community of laborers or agriculturists, to say nothing of the considerable amounts gained and saved by deliberate dead-beat-ism, including the repudiation of doctors' bills, grocers' accounts, etc., and a general demand for *half-rates.* Yet the navvy, porter, farm-hand, etc., are expected to pay their doctor bills and the clergyman's too when they marry and die, and this they do in the face of the fact that they work harder with longer hours, and with less of the amenities of life than their brethren of the pulpit—and it may be added in the majority of instances with more benefit to society.

We have no desire to attack the true clergyman; far from it. Such have ever had and ever will have our best sympathy, respect, and most cordial cooperation. We refer solely to the parasites of the pulpit; those who don the black coat to gratify petty personal ambition, to secure social recognition in a class to which they are not entitled by either birth, breeding or education to enter, and who become preachers because they believe it a calling which most nearly enables them to live without effort. In this connection it may be well to cite briefly a couple of the samples of the "holy calling" that have recently been brought to our attention — and it may be added the individuals represent many denominations.

A physician in a neighboring city sent a half-rate bill to a clergyman possessed of double his (the physician's) income. A great deal of time had been given to this individual's family, and the bill at full rates would have amounted to nearly two hundred dollars. In return for this *half-rate bill* the medical man received a most insulting reply, and was told that the minister was "not in the habit of paying physicians' bills" and he did not ever propose to pay any!

In another city one hundred miles from the former two medical men together attended a very difficult obstetrical case which finally required craniotomy and many hours of attention. For this neither were even so much as *thanked!* One of the physicians was subsequently asked by this clergyman to

hand in his application for initiation into a secret society. This was done; and although the fee for initiation did not accompany the application, as is customary, the lodge, supposing it would be forthcoming, proceeded to admit and initiate him. This was several years since, and the clergyman has received notice both for his initiation and for subsequent dues, but has never paid one cent. Very properly the lodge has cut him off from all association.

A well known doctor of divinity of Columbus, Ohio, recently made the statement that he would never so much as take a pass from a railroad since he can do nothing for the railroad to warrant it. This gentleman pays full fare the same as any other individual, and pays his other debts accordingly.

Another clergyman well known to the writer, whose income was very far from being large, throughout his most useful life insisted upon paying full fees for all services rendered him; and although during a number of years he had occasion to employ some three or four different physicians, their regular charges were insisted upon and paid in full.

We are glad to say, from the number of letters that have reached the MEDICAL AGE, that the editorial in the issue of May 25th appears to have received the general commendation of the medical profession, and above all of a large number of clergymen.

In these latter days of the nineteenth century when the tendency is to "scotch" and kill off all forms of parasitism and to weed from the profession those who are unprofessional, it must be evident that the unprofessional clergyman, and the would-be clerical mountebank and mendicant, will ere long also be forced to seek their proper social level.

CASTRATION OF THE FEEBLE-MINDED.

One of our New York contemporaries is going into spasms of horror and virtue over a bill recently introduced in the Michigan Legislature with a view to castration of epileptics and other feeble-minded individuals —a measure intended to limit the reproduction of these defects. The same bill also provides for a like penalty for rapists and habitual criminals—those of the latter who have served three or more terms in prison; criminal assault is also sought to be brought within the workings of the proposed law.

One contemporary suggests it would be cheaper and more effective if the penalty of decapitation was enacted.—This is undoubtedly true. But unfortunately the mawkish sentiment which pervades modern civilization, that provides for the criminal oftentimes better quarters, better clothing, and better food than he has ever been accustomed to, will not tolerate anything to the betterment of the public at large or that in any way trenches upon a popular fetich. And when we read some of the lucubrations that have found place in alleged medical and scientific journals, it is readily realized in many individual instances "Othello's occupation" would speedily be "gone" if the reproduction of idiots and feeble-minded was to be limited. For all the boasted enlightenment of the nineteenth century, the old Phallic fetich still obtains, even though sedulously disguised; and some of our great philanthropists would rather see the entire country taxed to the utmost limit to support a constantly increasing population made up of criminals, insane, feeble-minded, idiots, epileptics, *et al.*, than sanction any act that will tend to free society from one of its most onerous burdens. These same individuals would have no hesitancy in advocating the removal of a cancerous breast, of a sarcoma, or any other portion of the anatomy which had become morbid and threatening to the health and life of the individual or to the weal of the public; but when even greater ills accrue to the individual and to the public as a result of animal sexuality, the cry of "hands off" is immediately raised and these pious gentry roll up their eyes in well simulated horror.

This is a question that requires to be decided by the dictates of physiology and common sense. We have never advocated or opposed asexualization, believing it demands careful thought and study, barring all sentimental issues. Should such be made a part of any criminal code, the danger lies in too sweeping a general application, based perhaps on insufficient evidence, especially as regards rape and criminal assault. It might put a terrible weapon in the hands of vicious and designing females.

ADVERTISING DISHONESTY.

Misrepresentation is always despicable, and may even become criminal when employed to the end of juggling with life and health. Doubly despicable and criminal is the act of a medical journal that, in order to please advertisers, or for a consideration, deliberately lends itself to perpetuation of what is known to be a wilful falsehood. Confidence games, pocket-picking and even house-breaking are legitimate by comparison.

We are led to these remarks by the discovery that certain advertisers of nostrums, proprietaries, etc., are in the habit of quoting their own advertisements as they appear in one journal in the columns of another, and in a way to delude the reader into the belief such are spontaneous editorial expressions; and we regret to say there are journals who lend themselves to the dissemination of such dishonesty.

THE MEDICAL AGE has just suffered in this way, a thirty-five line advertisement having been quoted ostensibly as an editorial utterance. It is well known that the editorial management of THE MEDICAL AGE has nothing to do with the advertising columns, and *vice versa*.

We have never "puffed" editorially or otherwise any nostrum or proprietary, and any repetition of this offense and endeavor to stultify the editorial policy of this journal will be met as it deserves, and in a way to effectually put a stop to such dishonest acts. *Verbum sat.*

If medical journals will insist upon publishing so-called "reading notices" they at least owe it to their subscribers and patrons that such should be designated by the customary "—Adv."

EDITORIAL NOTES.

Tusa.—

There is a plant, native to New Zealand, called tusa, or tupaki, which bears a fruit similar to a grape, of a bright scarlet color, the seed or kernel of the berry of which contains an active toxic principle, that directly induces lockjaw. Considerable experimentation has been carried on with this agent to determine its usefulness in medicine, and it is claimed to have proved of considerable value in epilepsy. Should further experiment confirm these conclusions it will doubtless be introduced to practitioners in the United States.

Cancer.—

A recent writer recommends the application of chloride of chromium, incorporated with stramonium ointment, and adds the tumor in a few hours is converted into carbon and crumbles away.

This claim lacks substantiation. Will not some of our readers give their experience with the remedy?

Worthy of Imitation.—

The Empress Elizabeth of Austria, the accomplished horsewoman and the sovereign of a court whose aristocratic prejudices are of the strongest kind, delights in her fame as a pastry cook, and her daughter, the Archduchess Valerié, is proud of her accomplishments in the methods of the ancient and modern cuisine.

One of the Anomalies of Politics.—

Germany pays a bounty on exported sugar and the United States imposes a proportionate tax to keep the same out of the country. According to popular political theory, both countries only need the sugar to be dumped in mid-ocean to insure mutual prosperity. Who is to decide when tariff doctors so radically disagree?

Guaiacol Hypodermatically.—

An exchange says when this drug is employed subdermically it will be tasted within a few moments. This is naturally to be expected, considering the close relationship to other drugs that exhibit the same property.

Saw Palmetto.—

Doctor Gifford reports a case of traumatic prostatitis readily and quickly relieved by saw palmetto in five-drop doses given every hour.

Bad Temper.—

Wide open staring blue eyes combined with a fair complexion, according to *Lippincott's Magazine*, is an index of a vile temper.

Items and News.

Quicksilver for Bowel Obstruction.—

A correspondent sends us an interesting old letter recording the recovery of a patient under the administration of a large quantity of metallic mercury after his case had been abandoned as hopeless:

EDENDERRY, 1st September, 1822.

SIR—I have the pleasure to inform you that Mr. Mackey is alive and likely to recover, in a miraculous manner, after ten days in a shocking state and given over by the physicians who attended; they made one desperate and final attempt by putting down his throat half a pound of Quicksilver, which by its weight and activity forced a passage through his stomach and saved his life!

I am, your obedient servant,
J. BROWNRIGG.

—*Medical Press and Circular.*

Bogus Wines in Germany.—

Commenting upon the enormous exports from Germany to the United States of artificially prepared wines and inferior spirits and beers, the *Berlin Neueste Nachrichten* says that since the passage of the wine act by the Reichstag in 1892, in regard to the adulteration of wines and alcoholic beverages, immense quantities of liquors have been brought into the market under the name of wines, at such low prices as to prove it impossible that they could have been prepared in accordance with the law.—*Medical Record.*

A Negro Woman Doctor.—

At the recent examination before the State Medical Board of Louisiana one Emma Wakefield, a young negress, passed a very successful examination. She is the first woman in the State of Louisiana to study medicine, and the first negress in America to receive a medical diploma.

A New View of Motor-cars.—

"A capital invention—these horseless carriages!" "Don't talk rubbish. We have had for a long time things quite as remarkable in their way as horseless carriages, and nobody takes the slightest notice of them." "Indeed! What, for instance?" "Cowless milk."—*Exchange.*

We Would Like to, but We Can't.—

The inhabitants of Terra del Fuego, magnificent specimens of physical development, go about in the ice and snow of their cold land with no clothing on at all, and declare themselves entirely comfortable.—*Medical Times.*

Book Reviews.

LIPPINCOTT'S MAGAZINE. Price, 25 cents; $3.00 per year. The J. B. Lippincott Co., Philadelphia.

The complete novel in the June issue, "As Any Gentleman Might," is a rattling tale of adventure by William T. Nichols. The other stories, "To Him that Hath," by Annie N. Meyer, and "From the Grand Stand," by Jean Wright, are very brief; the former shows how subscriptions may be won for charitable work. "A Feathery Début," by Lalage D. Morgan, is a charming account of a family of thrushes, whose domicile was in the writer's garden. Natural history is further represented by "A Year of Butterflies," by Frank H. Sweet. Fanny B. Workman describes "Spanish Plains and Sierras;" R. G. Robinson writes of "A Yankee Farmer in Florida;" and John Murdoch has some words on "Fireplaces of Snow." "College Athletics" are vindicated by Albert Tyler; Francis M. Butler writes of "Teacup Times;" and Edward S. Van Zile resurrects "New York's First Poet," viz., Jacob Steindam, whose works appeared in 1659 and 1661. The poetry of the number is by Julien Gordon, Carrie B. Morgan, and Grace F. Pennypacker.

THE BADMINTON MAGAZINE. Price, 30 cents; $3.50 per year. Longmans, Green & Co., New York

The May issue opens with a racing story by A. E. T. Watson; Captain Everard Baring describes a little affray in "Three Rounds With a Bison;" Captain Philip Trevor tells how soldiers play cricket in an article entitled "Soldier Cricket;" "Diana Gastronomica" is an account of hunters' feasts when they cook their own game, and is by G. C. Rothery; "Blue-Rock Shooting From a Boat" is by A. M. Sutherland Graeme; E. H. Parker, late Consul in China, describes some "Chinese Games and Sports;" Margaret Orde writes of "Cycling in Traffic;" "University Rowing Fifty Years Ago," by W. K. R. Bedford, is reminiscent of the pioneer days of boating; "Close Shaves" is by G. H. Trevor; "Driving at the Cape," by M. F. Rimington; "Inter-'Varsity Athletics," by W. Beach Thomas; and "Notes by 'Rapier'" complete the number. The illustrations are by G. H. Jalland, S. Berkeley, L. Davis, L. Speed, J. G. Keulemans, and F. S. Wilson.

GODEY'S MAGAZINE. Price, 10 cents; $1.00 per year. The Godey Company, New York.

The June number opens with a bit of fiction, "Two Maids and a Man," by Gilbert Cranmer; "A Street in Cairo" is by Francis E. Clark; "French Opera in New Orleans," by J. W. Dodge; "Pottery in America," by George E. Walsh; "Tess of the D'Urbervilles," by Beaumont Fletcher; "A Study in Indian Red," by J. T. Connor; "Woman and Her Boat," by Fred Werden; "A Proceeding in Ejectment," by Lizzie H. Neff; "Lila," by Olivia Fox; "A Lone Hand," by J. F. Thorne; "Flip," by Maud H. Peterson; "Yappan, the Aztec St. Anthony," by J. Lovering; "The Winning of Larchmont," by Agnes Provost; "The Soul's Treasure," by Kathleen G. Nelson; "The Brown Rose," by V. D. Hyde; "Our First Wild Flowers," by W. S. Rice; "A Eulogy of Street Ballads," by Rupert Hughes.

ARCHITECTURE AND BUILDING. Price, 10 cents; $4.00 per year. William T. Comstock, New York.

The May 22d number contains the following table of contents: "The Tariff Agitation and Business;" "Editorial Notes and Comments;" "Myths, Superstitions, Romance and Humor of Architecture" (XV); "An Error;" "In Streets and Papers;" "Programme of the Capitol Competition, Harrisburg, Pa.;" "Industrial Education;" "The Academy Awards;" "The Capitol Building, Mexico;" "The Chateau Chantilly;" "Correspondence;" "The Queen's London;" "Commercial Excursion Rates;" "Societies;" "Personal;" "Current Notes;" "Industrial Progress."

Table of contents for May 29th: "The Question of Competitions;" "The Sympathetic Strike;" "Editorial Notes and Comments;" "The Planning and Construction of High Office Buildings" (VI); "In Streets and Papers;" "Book Notes;" "Personal;" "The Horseless Carriage;" "Book Reviews;" "Correspondence;" "Societies;" "Current Notes."

THE CENTURY. Price, 35 cents; $4.00 per year. The Century Co., New York.

The June number opens with a contribution by Florence Hayward on "Queen Victoria's 'Coronation Roll;'" "The Last Fight" is by L. F. Tooker; "The Shaw Memorial and the Sculptor St. Gaudens" is discussed by Edward Atkinson, W. A. Coffin, and T. W. Higginson; "The Secret," by G. E. Woodberry; "Campaigning with Grant," by Horace Porter; "Heroism in the Lighthouse Service," by Gustav Kobbé; "The Days of Jeanne d'Arc" (III), by Mary H. Catherwood; "Home Life Among the Indians," by Alice C. Fletcher; "To-morrow and To-day," by Richard Burton; "Hugh Wynne, Free Quaker" (VIII), by S. Weir Mitchell; "How Sarah Paid for Peace," by Margaret S. Briscoe; "A Great Modern Observatory," by Mabel L. Todd; "How a Riddle of the Parthenon was Unraveled," by Eugene P. Andrews; "Queen Victoria," by Hon. Thomas F. Bayard. There are the usual departments.

OUTING MAGAZINE. Price, 25 cents; $3.00 per year. The Outing Co., New York.

The June number contains many seasonable sketches of sport, travel and adventure at home and abroad. A profusion of beautiful illustrations embellish a thoroughly satisfying number. T. Philip Terry tells of the pleasures of "Wheeling in the Mikado's Land;" Ed W. Sandys contributes a most useful paper on "Bass and Bass Fishing;" R. B. Burchard discusses "Champion Canoes of To-day." The fiction department contains a complete story, "Frankie's Wooing," by Louise D. Mitchell; "Intercollegiate Cycling;" "Interuniversity Rowing;" touring awheel, golf, sport in foreign lands, driving four-in-hand, seafishing, the National Guard and other interesting subjects are ably handled in this best of sporting publications. The other departments are up to date and valuable.

SCRIBNER'S MAGAZINE. Price, 25 cents; $3.00 per year. Charles Scribner's Sons, New York.

The June issue proves most interesting reading. Besides the usual instalments of poetry James W. Alexander writes of "Old and New Undergraduate Life at Princeton;" Richard H. Davis gives two more chapters of "Soldiers of Fortune;" M. Schuyler writes of "The New Library of Congress;" C. D. Gibson contributes a fifth instalment of his papers on "London," specifically describing London *Salons;* "Raleigh in Guiana," by Barrett Wendell; "A Normandy Pastoral," by Theodore Robinson; "The Non-Combatant" is a story of labor and capital by the charming lady who calls herself Octave Thanet; "The Open Boat," by Stephen Crane, seems to be the one mediocre of the whole month. There are the usual departments.

ST. NICHOLAS. Price, 25 cents; $3.00 per year. The Century Co., New York.

Contents for June: "Master Skylark" (XXIV–XXVI), by John Bennett; "Steering Without a Compass," by Gustav Kobbé; "The Risks of a Fireman's Life," by C. T. Hill; "The Last Three Soldiers" (XIV–XV), by William H. Shelton; "Plants That Feed Upon Insects," by T. H. Kearney, Jr.; "Miss Nina Barrow" (IX), by Frances C. Baylor; "Nature's Cycle-Path," by Grace W. Curran; "A City in a Volcano," by A. H. Verrill; "What is Told by the Bell," by Lieutenant Ellicott, U.S.N.; "A Great Poet and a Little Girl," by Edith M. Nicholl; "A House-Moving Holiday," by W. S. Harwood; "Curious Facts About Figures," by Mrs. E. T. Corbett. There are the usual departments.

THE JOURNAL OF COMPARATIVE NEUROLOGY. Edited by C. L. Herrick, Oliver S. Strong, and C. Judson Herrick. Volume VII, No. 1. Price, $1.00; $3.50 per year. Published by the Editors, Granville, Ohio.

The current (April) issue of this well known quarterly, devoted to the comparative study of the nervous system, is of special interest. B. F. Kingsbury writes of "The Structural Morphology of the Oblongata in Fishes" and also of "The Encephalic Evaginations in Ganoids," both illustrated with plates. "The Early Development of the Epiphysis and Paraphysis in Amia" is by A. C. Eycleshymer and B. M. Davis, illustrated with one plate. "The Ethics of Criticism," an editorial, is by C. L. Herrick. There are the usual notes, etc.

MCCLURE'S MAGAZINE. Price, 10 cents; $1.00 per year. The S. S. McClure Co., New York.

In the June issue Professor S. P. Langley, Secretary of the Smithsonian Institution, describes the "Flying-Machine" that he himself has lately completed, after ten years of laborious experiment, and which is the first "flying-machine" ever made by man that has actually flown. Apropos of the sixtieth anniversary of the reign of Queen Victoria, there is a series of life portraits of Her Majesty, the earliest at the age of two years, the others almost year by year down to the present day. William Allen White contributes "Decoration Day;" Th. Bentzen (Madame Blanc) writes of "Revue des deux Mondes."

AMERICAN KITCHEN MAGAZINE. Price, 10 cents; $1.00 per year. The Home Science Publishing Company, Boston.

In the June issue Hanna O. Brun writes of "Housekeeping in California;" Julia Dalrymple of "The Ethics of Household Economics;" Alice E. Moore of "Summer Fancy Work;" "The Master's

Choice" (verse) is by Helen L. McCarthy; "The Chemistry of Cooking and Cleaning," by Ellen H. Richards and S. Maria Elliott; "Southern Cookery," by Julia D. Chandler; "How to Cook Mushrooms," by Annie P. Doughty; "Yeast Doughs," by Anna Barrows. Other items are "Domestic Fallacies;" "National Household Economic Association;" "News From the Field;" "Editorials;" "Book Reviews."

THE OSPREY. Price, 10 cents; $1.00 per year. The Osprey Co., Galesburg, Illinois.

The May issue contains a beautiful half-tone frontispiece of Magnolia Warblers taken from a painting by Louis A. Fuertes; "Notes on the Marbled Murrelet" is by Joseph Grinnell; "Anna's Hummingbird," by Mrs. Elizabeth Grinnell; "Nest and Eggs of the American Herring Gull," by Ora W. Knight; "A Correction of a Frequent Mistake," by Ludwig Kumlien; "Formation of the Bill in the Genus *Loxia*," by William P. Lemmon; "Great Horned Owls," by Allen A. Green; "Practical Feather Work," by Charles Hallock; "Au-Mon Re-Nay sshen," by Chief Pokagon; "Blowing Incubated Eggs," by Albert Lano. There are the usual departments, etc.

THE AMERICAN ANTIQUARIAN. Price, $1.00; $4.00 per year. S. D. Peet, Good Hope, Illinois.

The May issue of this bi monthly lies on our table with a most interesting list of papers. "The Almanac of China and Central America" is by James Wickersham; "The Aboriginal Remains of Balsam Lake, Ontario," by G. F. Laidlow; "Migrations of the Lenni-Lenap or Delawares," by Cyrus Thomas; "An Analysis of the Day Signs in the Palenque Inscriptions," by L. W. Gunckel; "Engraved Shell Gorgets and Flint's Ceremonial Implements," by G. P. Thruston; "Relative Age of the Pueblos and Cliff Dwellings," by Stephen D. Peet; "Palestine Explorations," by Theodore T. Wright. There are the usual departments.

THE COSMOPOLITAN. Price, 10 cents; $1.00 per year. The Cosmopolitan Publishing Co., Irvington, New York.

The June number is possessed of especial interest. Peter MacQueen writes of "Constantinople;" William M. Brewer of "Moonshining in Georgia;" Arthur H. Beavan of "Marlborough House;" T. B. Connery of "Secret History of the Garfield-Conkling Tragedy;" I. Zangwill of "The Turkish Messiah;" Henry Morton of "Modern Education;" Frank Morgan of "Getting and Spending." There are the usual poetry and art illustrations; besides the Editor writes of "Poultry Farming," and "The War of Worlds" by G. H. Wells is continued.

NORTH AMERICAN REVIEW. Price, 50 cents; $5.00 per year. North American Review Co., New York.

The leading papers in the June issue are: "How the House Does Business," by Speaker Reed; a second of M. G. Mulhall's articles on "The Progress of the United States;" "The Record Reign," authorship being credited to the Marquis of Lorne, is another contribution to the literature of the Jubilee, just as "The Queen's Parliaments," by H. W. Lucy, is a review of past scenes in the House of Commons. The list of noted contributors this month includes Professor Goldwin Smith, John W. Russell, Lloyd Brice, and others.

APPLETON'S POPULAR SCIENCE MONTHLY. Price, 50 cents; $5.00 per year. D. Appleton & Co., New York.

The June issue contains an important contribution to modern economics by the Honorable David A. Wells on "The Nomenclature and Forms of Taxation." Some interesting facts regarding the early use of alcoholic beverages are given by Doctor C. E. Pellew; Professor Ripley contributes an instalment to his series on "The Racial Geography of Europe;" Professor Jordan discusses pseudo-scientists. There is also an interesting paper by Professor W. Le Conte Stevens on "The Evolution of the Modern Heavy Gun."

THE CANADIAN MAGAZINE. Price, 25 cents; $2.50 per annum. Ontario Publishing Co., Limited, Toronto.

In the June issue J. G. Bourinot writes of "English Principles of Canadian Government." Other articles are "Scientific Colonization," by Ernest Heaton; "The Childhood of the Queen," by Fritz Hope; "Another Fast Line via Newfoundland," by P. T. McGrath; "My Contemporaries in Fiction," by David Christie Murray; "The Queen's Horses and Carriages," by Mary S. Warren; "The Queen's Reign"—A Symposium. There are the usual departments.

THE MIDLAND MONTHLY. Price, 15 cents; $1.50 per year. Johnson Brigham, Des Moines, Iowa.

The June issue offers a hitherto unwritten account of the Walker raid and Quantrell's betrayal of his comrades in "Quantrell, the Guerilla Chief." In Colonel Emerson's "Life of Grant" is a description of his wedding, at which Colonel Emerson was a guest. D. L. Savage contributes his first paper of a series on the "Birds of the Midland Region;" "Across Country in a Van" (v) is by Mary Avis Scott. There are several excellent stories and poems.

THE PROFESSIONAL PHOTOGRAPHER. Price, 10 cents; $1.00 per year. The Nesbitt Publishing Co., Buffalo, N. Y.

The May issue contains papers on "Posing;" "Toning Bromide Prints;" "Bromide Enlargements;" "Development of Kinetograph Films;" "Essentials of a Good Negative;" "Developers and Development;" "Dark-Room Manipulations;" "Landscape Photography;" "Color Photography;" and general useful information.

THE PHRENOLOGICAL JOURNAL. Price, 15 cents; $1.50 per year. The Fowler & Wells Company, New York.

The notable papers for June are: "The Queen of England;" "The Prince of Wales;" "The Princess of Wales;" "The Duke of York;" "Burns and Scott Compared;" "American Ambassadors to Great Britain and France." There are the usual editorial and departments.

Therapeutic Brevities.

Management of Glaucoma.—When syphilis is the agent of causation the indications are clear:

Acute or chronic glaucoma of other origin finds its initial cause and beginning in the digestive tract:

A departure from the normal physiological processes in the digestive tract intoxicates slowly, progressively and accumulatively both the vascular and nervous systems, producing a degrading tissue change in various organs; and interstitial ophthalmitis (glaucoma), an interstitial nephritis, etc., which may be precipitated into a violently active form by injury, exposure, a more than usually indiscreet meal, or by a severe emotional crisis:

The chronic simple glaucoma consists in a hyperplasia of connective tissue, involving ultimately the whole bulb, and cannot be relieved by operation:

That the acute form is vascular in character and may be engrafted upon the chronic form:

That to meet the indications on this basis one must begin with the beginning of the disease and correct individual habits

In the way of specific measures I uphold the general hot bath, the use of myotics with taxis of the eyeball, the prompt exhibition of colchicine, the hot bath repeated after several hours, if necessary, always keeping the patient warm after it. After gaining control of an attack, prophylaxis, as in the case of chronic simple glaucoma. In chronic glaucoma, baths, always hot, several times a week, in a warm room, and immersing the whole body. The bath need not be hot enough (102° to 104°) or continued long enough to produce sweating. A weak myotic collyrium must be persisted in, with daily taxis for a few minutes, until the tension is normal and remains so. A mixture of sodium salicylate, ammonia, and taraxacum should be pushed to the point of physiological tinnitus, and continued as long as necessary, except suspending it to combat symptoms of irritable glaucoma that may arise, with colchicine, if it continues to act well. The bowels must be kept loose.

I have never seen a case of glaucoma, acute or chronic, that did not have a history of gout, inherited or acquired.—Richey, in *Annals of Ophthalmology and Otology.*

Alcohol in Carcinoma.—Alcohol favors cicatrization in all growths like struma, angioma, cysts, lymphatic gland tumors, sarcoma, carcinoma, and especially carcinoma of the breast and cervix uteri. Under its use, in fifteen out of eighteen cases of carcinoma of the breast, the growth gradually dwindled away, until in a year there was nothing left but the connective tissue stroma, and there has been no return. Five cases of carcinoma of the cervix also recovered completely, and the patients are still living and in good health. The effect on the general health is even more surprising. The pains and uneasiness pass away, and sleep, appetite, assimilation and strength return in a most remarkable manner.

I use alcohol diluted one-half or even more with very sensitive patients, as it is less painful, while equally effective with the undiluted. One, or at most two, injections are made at a time, drawing the breast out and inserting the needle so that the alcohol will penetrate into the retro-mammary cellular tissue beyond the middle of the gland. The contents of the syringe should flow out gradually on gentle pressure of the piston; if there is resistance, withdraw it a little and insert the point sideways in another direction,—in this way the retro-mammary space is filled with the alcohol, five to ten centimeters for small tumors and ten to twenty centimeters for larger ones. Care is taken not to touch the rear wall of the tumor, but to keep always well in the space behind it. After the needle is first introduced, withdraw it to see if any blood flows out of the hole, evidencing the needle has penetrated a blood-vessel; if it has, clean the syringe and insert it in another place. The injections should be made once or twice a week at first, and later once in two or three weeks. The patients with carcinoma of the cervix were dispensary cases and received only six or twelve injections in all, extending over many weeks. A case of inoperable cancer of the rectum was much benefited, but death ensued from heart disease. In making injections into the uterus above the cervix, which require considerable effort, I never draw down the organ, but leave it in its normal position, so that the alcohol can find its way into the tissues without undue distention, which might cause necrosis. Alcohol has no effect on mastitis chronica, and is therefore a means of differentiation.—Hassel, in *Therapeutische Wochenschrift.*

Surgical Treatment of Prostatic Hypertrophy.—An interesting discussion took place at the German Surgical Congress on the present position in respect of the surgical treatment of the hypertrophied prostate. It is conceded that in four-fifths of the cases treated by castration the gland was reduced

in size, and this proportion roughly corresponds with the results obtained by Brun and Socin from resection of the vasa deferentia. Generally speaking, the effects of the operation were manifested with great promptitude, but in a few cases several months elapsed before the symptoms began to subside; while in a small minority no tangible improvement was obtained. According to Guyon, prostatic hypertrophy is not a disease *per se*, but only one manifestation of a morbid process associated with arterio-sclerosis, which involves the whole genito-urinary apparatus. Whether this hypothesis be correct or not, it is agreed that treatment must not be limited to the prostate. According to Socin, in eighty per cent. of the cases of hypertrophied prostate discovered post mortem the patients had never presented symptoms of urinary troubles, from which fact he infers that the enlargement of the prostate alone does not constitute *prostatism*, a condition in which an abnormal condition of the bladder plays an important part. He goes so far as to assert that the diminution in size of the prostate which follows one or other of these operations is not due to atrophy, but merely to decongestion, a result which he asserts can be equally well obtained by massage of the organ. It may be conceded that in a certain but variable proportion of cases of prostatic hypertrophy some measure of relief is afforded by castration or resection of the vasa deferentia; but in young patients—that is to say, men under sixty years of age—these operations are apt to determine grave mental disturbance of a melancholic type, and, in Germany at any rate, the direct mortality of the operation is tolerably high.—*Medical Press and Circular.*

Ice-bag in Pneumonia.—Apply the ice-bag over the dull area, and especially over the advancing edge of the consolidation:

If the area is large, use two bags at least, or three; even young children may require two:

Expect to find a distant local effect (improvement of percussion-note, less bronchial breathing, looser râles) on careful physical examination, after the ice has been applied for twenty-four hours:

If fresh areas of consolidation develop, use additional bags; four or even more may be needed in a bad case; the amount of the dose is as important as it is with drugs:

Take the temperature every half hour for the first three hours, afterwards every two hours:

Apply hot water bottles to the feet and legs; for children supply these before the ice is applied:

Examine the physical signs carefully twice daily, and shift the bags accordingly:

If pericarditis is present, place one ice-bag over the heart:

If temperature is below 99° F., the hands cold or the lips bluish, remove the bags for an hour; then replace them, and use them for two- or three-hour periods, with one- or two-hour intervals:

If in a severe case there is distinct cyanosis and a rapid feeble pulse, consider whether leeches (in urgent cases venesection) would not relieve the right heart:

In all cases see that sleep is secured during the first three or four nights. If the relief afforded by the ice-bag does not suffice for this, give chloral or morphine.

Pneumonia treated vigorously with ice within twenty-four hours after the rigor may sometimes be aborted.—*Charlotte Medical Journal.*

Belladonna in Bronchitis.—In the summer of 1893 a girl aged fourteen had a very severe attack of pharyngeal diphtheria. In spite of most active treatment six weeks elapsed before the membrane had absolutely disappeared. Then followed a very marked and generally distributed paralysis—pharynx, larynx, and both extremities being involved. Feeding was wholly carried on by the nasal tube or by the rectum; emaciation was extreme. The right lung was completely collapsed, so that the cardiac apex was beating just internal to the right nipple, and the liver dulness was drawn up.

After a week of treatment I found the patient, on the night of August 9, in a state of extreme weakness. She had a perpetual cough that quite exhausted her; was ever trying to clear her throat. There was a constant moist tracheal râle, the only difference between it and a death-rattle being that the tracheal sensation and reflex were still perfect. In my despair I ordered ten drops tincture of belladonna every four hours. Next morning I found the patient had passed a better night; the tracheal râle had largely cleared, and the cough was much less troublesome.

I have since used belladonna in the case of a young child with very sudden development of capillary bronchitis and universal moist râles, where the heart tended to fail before the right ventricle had got accustomed to the impediment in the lungs, and with admirable effect. I always use belladonna liniment as an application in cases of bronchitis with moist râles.—SHEARAR, in *The Lancet* (London).

Snake-bite.—Some months ago I saw an article in one of the New York journals concerning the treatment of snake-bite with the bile and flesh of the reptile. Consequently I directed a taxidermist who had on hand a number of rattlesnakes to prepare a gall-bladder for use in emergency. On or about the 12th of June the same taxidermist, an aged man, was struck on the inside of the left knee by one of his large rattlers. Immediately disposing of the snake he proceeded to examine the wound, which was bleeding freely. Suction by the mouth, a milking or strapping process with the fingers, with a hunt for and application of some household ammonia, must have taken several minutes before the bottle of bile was thought of. This was applied freely to the wound, and an incision was also made, into which the bile was poured. It was probably half an hour before he reached my office, apparently all right, but a little anxious. I continued the application of the bile, and covered the wound with a piece of the wall of the gall-bladder. No other treatment was pursued beyond a few doses of ammonium carbonate. There was not one particle of swelling, nor did the man suffer from inconvenience of any kind.—ALEXANDER, in *Medical Record.*

Death Following Use of Nitrous Oxide.—A man between fifty and sixty years of age visited a dentist who makes a specialty of extracting teeth under the influence of nitrous-oxide gas, in order that he might have removed one or two molar teeth. He had often taken nitrous oxide in the same dentist's office on previous occasions, and always without any ill effects whatever. On this occasion he took the ordinary quantity, his teeth were extracted, and he returned to consciousness with the usual rapidity. He left the dentist's chair, walked to a wash-stand, and began to rinse out his mouth with water. While doing this he stated that his right hand felt numb, then complained of the extension of this numbness up his arm, and rapidly to his leg and side. He was helped to a sofa, where in the course of a very few moments he became partially unconscious. In twenty minutes he was breathing stertorously. He seemed to understand questions put to him, but was unable to answer them clearly, and in the course of a very few minutes passed into absolute insensibility, which, notwithstanding the use of venesection and other measures, deepened into coma, in which he died about twelve hours after taking the anæsthetic.—*Therapeutic Gazette.*

Insomnia.—"Nature's plan for curing insomnia is to limit the supply of oxygen to the blood, as the cat and dog bury their noses in some soft hollow in their hair or fur, birds put their heads under their wings, and soon fall asleep. Those suffering from insomnia should cover their heads with the bed-clothes, and breathe and rebreathe only the respired air. When drowsiness is produced sleep quickly follows, and the bed covering may be pushed aside and as much fresh air obtained as is needed."—*Indian Lancet.*

The scientific basis for the above idea no doubt lies in the fact that a certain degree of cerebral anæmia is requisite for the production of sleep. It is well known, experimentally, that dogs deprived of their normal cerebral blood-supply by ligation of the carotid and vertebral arteries are afflicted with an intense drowsiness, so great that they readily fall asleep under most adverse conditions and are aroused with much difficulty. Practically there might be some difficulty in carrying out the plan suggested, but theoretically the soundness of the idea cannot be questioned.—*Yale Medical Journal.*

Safe Anæsthesia.—To one pound of chloroform add one measured drachm of amyl nitrite.

In giving the mixture the usual precautions must be observed. A moderate opiate should be given about one hour before the anæsthetic. When ready undress the patient, place in the horizontal position, and give the mixture drop by drop until the desired effect is secured. If after that anything goes wrong with the heart or lungs, the remedy is to introduce a rectal dilator and apply force as needed. The effect is immediate and may be prolonged indefinitely. As the antidote is mechanical it is safe in any case. If a more extended trial of this method should confirm what is claimed for it, no other form of anæsthesia would be needed.—M. M. LATTA.

Phlegmon of Hand.—This condition is frequently followed by considerable disability, which may become permanent, due to binding together of the soft parts by contracting scar tissue; the process may go so far as to cause anchylosis and even subluxation of joints. It is possible in a great measure to avoid such result by active and passive motions from the very beginning of the healing process. The frequency of the motions is more important than the force exerted. Pain

after the exercises shows that they have been too vigorous. The joints should be moved several minutes at a time, amounting in all to two or three hours in the course of a day. The patient himself can usually carry out this treatment if the dressings are properly arranged.—*International Journal of Surgery.*

Mullein Oil in Deafness and Enuresis.—Two schoolgirls who had been excluded from the public schools on account of deafness were again admitted after about three weeks' use of the mullein oil, two or three drops in each ear twice a day. I have found it helpful in many cases of deafness in older people.

For enuresis also I have found it, so far, a specific; I place it at the head of the list for that condition, both for its certainty and pleasantness. A boy of sixteen had from childhood been troubled with enuresis, which nothing could cure until he received fifteen drops of mullein oil three times a day; this soon afforded permanent relief.—Laws, in *California Medical Journal.*

Anent So-called Cholagogues.—Bicarbonate of sodium, chloride of sodium, sulphate of sodium, etc., have no true cholagogue action:

Gamboge, jalap, aloes, scammony, senna, are drastic substances, have no assured cholagogue action, and often diminish biliary secretion:

Alcohol and olive oil diminish biliary secretion more often than they increase it:

Atropine and pilocarpine invariably diminish biliary secretion:

Acetanilid, caffeine, santonin, etc., are of doubtful action:

The substances truly cholagogue are salicylate of sodium, calomel, and bile.—*Berliner Klinische Wochenschrift.*

Potassium Nitrate in Heart Disease.—Krivonogoff advises nitrate of potassium in ten-grain doses, six times in twenty-four hours, in heart disease, especially in patients presenting loss of compensation. Under this treatment he claims the contractions become stronger and arterial pressure increases; frequently the pulse becomes slow. An increased amount of urine is also a frequent occurrence, and as a result œdema, hydrothorax and ascites become less or disappear. Dyspnœa and sleep are also favorably influenced. In a number of cases where the remedy was used for a long time no unfavorable symptoms were noted.—*Universal Medical Journal.*

A Cheap Disinfectant.—Nitrate of lead is the cheapest disinfectant known that fulfils its intent, but it does not, however, prevent putrefaction. Lead chloride is much more effective in every way, and may be made extemporaneously by mixing a solution of nitrate of lead (a teaspoonful to a quart of water) with a solution of common salt (two teaspoonfuls in eight quarts of water). When the sediment has settled there remains two gallons of clear fluid which is saturated solution of chloride of lead. A pound of nitrate of lead will make several gallons of the liquid and only costs from eighteen to twenty-five cents at retail.—*Annals of Hygiene.*

Potassium Nitrate for Burns.—The addition of a few teaspoonfuls of potassium nitrate to a bath, into which the burnt part is plunged, will quickly cause cessation of the pain. After a time the water becomes heated and the pain returns, but again subsides on the addition of another quantity of salt. Vergely has obtained good results by covering the burnt parts with a paste prepared by mixing calcined magnesia with a certain quantity of water and allowing it to dry on the skin, renewing it as soon as it becomes detached. Under this treatment it is said that the wounds heal well and pain is prevented.—*Medical Standard.*

Chronic Malnutrition of Infants.—The combination of yolk of egg and olive or cotton-seed oil made into an emulsion is found very useful in cases of rickets or chronic malnutrition of infants: Olive oil, two ounces; glycerin, one ounce; yolk of an egg. Add one-half minim of creosote to each drachm. A full teaspoonful of the emulsion is given three times a day after feeding. The preparation seems to be readily tolerated, even when the stomach is irritable.—*The Practitioner* (London).

Nasal Eczema.—Give syrup iodide of iron, especially to children whose vitality is below par. It will bring about better results than all the local applications.—*Medical Summary.*

Sciatica.—Wine of colchicum root, five to ten minims three times a day, often gives prompt relief in obstinate cases.

Blood-stains.—To remove, soak the towels in warm water to which is added a teaspoonful of tartaric acid.

Medical Progress.

THE PRIMATE BRAIN.*—The comparative study of the convolutions of the brain surface in man, apes and monkeys may be said to have been founded by Gratiolet, who mapped out the fissures in the lower monkeys, traced the patterns upwards through the apes to man, and invented a system of names for the convolutions. In recent years this study has received impulse from two distinct causes: on the one hand, the greater opportunity of examining the brains of the higher apes; and, on the other, the attempt to locate definite functions in the convolutions has led to experiments being conducted by physiologists and psychologists upon the brains of monkeys. A great variation in the convolutions of species of monkeys and of apes has been thereby shown to exist, and more accurate data have been rendered available for a true morphological comparison with those of man; and although the subject has to a very great extent been attacked from a psychological standpoint, yet the morphology of the convolutions has received increased attention during the past few years, notably at the hands of Doctor Cunningham, whose careful and extended work on this subject covers a good deal of the ground opened up in the present memoir, which deserves a place alongside that of the Dublin anatomist.

The publication of Doctor Parker's work, which was communicated verbally to the Academy of Philadelphia as long ago as 1890, has been delayed till last year, owing to a variety of circumstances — amongst others, the death of the author in 1892. After an introduction dealing with the scope and aim of the memoir, there follows an interesting historical survey of the observations and opinions of the chief writers on the subject. The author then tabulates the names of the fissures and convolutions applied to the human brain, with their synonyms as employed by each author. This table will be of considerable value to students of the subject, as will be the historical survey.

How are these convolutions and furrows on the surface of the brain brought about? What is the cause of the gyrencephalous condition? This is still a matter of controversy. To this question two chief but opposing answers have been suggested, each supported by equally competent authorities. The one school looks on these convolutions as due to the effect of pressure of the slowly growing skull on the more rapidly growing brain. The opposite school believes the cause to be innate—that is to say, the convolutions owe their origin to differential growth in certain definite regions of the brain surface itself. Doctor Parker combines these two opposing views, believing that certain "fundamental fissures" are produced by mechanical causes, whilst others owe their origin to morphological processes of growth in the brain substance; the fissures, of course, representing lines of retarded growth. During early development it is the brain which modifies the shape and structure of the skull, rather than the reverse; ultimately, as the skull grows more rigid, its influence is shown in the increasing tortuosities of the folds.

The development of the human brain is traced out so far as is necessary to explain the author's views, and the various stages are compared with the adult brain of monkeys. At the age of three months the fœtal human brain consists of three lobes, which he terms the "occipito-frontal," "occipito-temporal," and "occipital." It does not immediately appear evident why the author employs compound names for the former two lobes, unless it be to insist as strongly as possible upon the fact that there is no such thing as "parietal lobe," at any rate as a morphological equivalent of the others. The "island of Reil" is not homologous with a "lobe," but is developed at the bottom of a depressed area, the *fossa sylvii*. Each of the three lobes contains a portion of the lateral ventricle; each will exhibit a similar, and symmetrical, series of furrows. He points out here as elsewhere that the "occipital" lobe, developed as it is round the posterior cornu of the lateral ventricle, is peculiar to the Primates.

During the third month a certain number of "temporary furrows" make their appearance on the surface of the hemispheres; they radiate from the region of the sylvian fossa, and when viewed from the mesial surface, lines drawn through all but those in the occipital lobe meet at a center which lies in the cerebral peduncle; and the angle included between any two neighboring lines is constantly 60°, or thereabouts. This fact he makes use of in considering the causes concerned with the production of these fissures, which he attributes to pressure between brain and skull.

But, as is well known, these temporary fissures disappear, and the brain again becomes smooth for a short time at about the fifth month; and he lays great stress on this smooth brain, with its three lobes, a sylvian fissure, a calcarine fissure, and "mesial arched

*"Morphology of the Cerebral Convolutions, with Special Reference to the Order of Primates." By Andrew J. Parker, M.D. *Journal Academy Natural Science*, Philadelphia.

fissure." The author regards this stage as the fundamental plan of the Primate brain; indeed, this is essentially the marmoset's brain enlarged. Later on new fissures appear, and he recognizes, in addition to the fundamental or primary fissures just mentioned, the secondary fissures; sulci of Pansch, mere vegetable repetitions of the last; sulculi, which are inconstant; and rami, which are the branches of secondary fissures or of the sulci of Pansch. The mesial arched fissure gives rise to the callosal and the hippocampal fissures; each of which, with the calcarine, is similarly related to one of the three primary lobes.

The occipital lobe next becomes definitely marked off from the rest by two fissures, a dorsal and a ventral, constituting the "primary occipital arch." The dorsal one is the "parieto-occipital" or "perpendicular fissure" of monkeys. The mesial ends of these are symmetrical with regard to the calcarine. These fissures, again, are regarded as being due to pressure.

This stage represents the characteristic Simian brain (including that of man).

Parker disagrees with the usual view, that the *fissure of Rolando* is a primary fissure; nevertheless, it is certainly characteristic of the Primate brain, for it occurs in no other order. He explains the fissure in an ingenious manner, by reference to a lemur's brain, in which there are two longitudinal fissures extending along the fronto-occipital lobe; a part of the upper one is supposed to become vertical. But no ontogenetic evidence is forthcoming for this view, which would lead us back readily to the condition of a carnivore's brain.

It is impossible to give briefly his many interesting suggestions as to the homologues of the frontal and parietal convolutions; but special interest will be taken in his account of the occipital convolutions, for these have always troubled anatomists, who have until recently regarded them as being more or less irregularly arranged, and consequently have neglected them. Parker endeavors to show that they can be reduced to order, especially if the development of the "plis de passage" or "annectant gyri" be taken into account. These rise up, as I have shown in discussing the brain of the chimpanzee "Sally," and as others have also shown, from the bottom of fissures; so that in one brain they may be hidden, in another they come to the surface and divide single fissures into two. Parker says: "The typical fissures represent the lines of least resistance to the differential action of the pressure forces. . . . As development proceeds, and the skull begins to assume a more fixed and rigid shape, new conditions and relations of the growth forces take place, as a result of which those portions of the cerebral surface lying in the depths of some of the fissures, originally produced by depression, are placed under new dynamical conditions; instead of being situated as formerly along the lines of resolution of greatest pressure and least resistance, they become centers of relatively greatest growth force as compared with the resolution of pressure forces." Hence they rise up as annectant gyri. To these interesting, and at one time puzzling, features he devotes some pages.

He gives a very brief, and second-hand, account of the convolutions in Carnivora and Ungulata, rightly insisting that it is impossible to homologize these fissures one by one with those of Primates' brains; for, even between ungulate and carnivore, it is only possible to compare groups of fissures. This fact is gradually becoming more and more fully recognized; and in mounting a series of brains for the Oxford Museum I have purposely indicated the fissures in the ungulate, for example, and the Primate brain, by means of entirely different sets of colors. There is a type of convolution for each order, these types being derived, not from one another, but independently for a smooth-brained condition; a view which accords with paleontological evidence. Nevertheless, there is more community between the Ungulata and the Carnivora in this matter than between other groups.

Finally, the author discusses the "Mechanics of the formation of cerebral fissures," and brings to bear on the subject the theory of the formation of films in soap-bubbles, propounded by Plateau; and the facts of surface tension as put forward by Maxwell. This part of the paper is illustrated by numerous formulæ and diagrams; but I imagine most anatomists will pass these by. If for surface tension of films we substitute the pressure forces produced by cerebral swellings aggregating round certain centers, then the peripheries, meeting each other within a confined space, produce the lines of fissuration.

The memoir, interesting as it is, would have been rendered more valuable by the addition of a bibliography; references are, indeed, given here and there in foot-notes, but they are scarcely worthy of the work.

The figures, again, copied as many of them are from various sources, are variously lettered; there is practically no "explanation" of plates, and some of the figures, which are mere outline drawings without shading, represent the brain in oblique directions,

which is very difficult to follow, as no indication of these directions is given in the list of figures.—W. B. Benham, in *Nature*.

A Rare Condition of the Vermiform Appendix.—A male subject, aged fifty, dissected in the Anatomical Department of Trinity College, Dublin, presented what must be considered to be a very rare condition of vermiform appendix. This process was not only of unusual length, but lay, except at its very commencement and termination, on the posterior abdominal wall behind the peritoneum; its direction was vertically upwards behind the ascending colon. On raising the ascending colon, and drawing it towards the middle line, there was found to be a distinct ascending mesocolon, which was attached to the posterior abdominal wall along a vertical line extending from a point two centimeters beyond the bifurcation of the common iliac artery, upwards towards the region of the second part of the duodenum. The elongate vermiform appendix lay close beside the right side of the root of this mesentery, except its distal end, where it was turned a little towards the right, and away from the root of the mesocolon. The blind end of the appendix, which was somewhat bulbous, reached just to the level of the under surface of the liver.

In length the appendix was exactly sixteen centimeters, and it was easily demonstrated to be pervious throughout its entire extent by inflating the cœcum with air. Only the terminal part, which was about one centimeter long, was completely invested by the peritoneal membrane; the rest, as already stated, lay behind the peritoneum, and was only partly covered by it.

Just at the point where the free portion joined the fixed part a small but sharply defined fold of peritoneum passed upwards towards the under surface of the liver. This fold, which appeared to enclose a feeble fibrous band or cord, was found to end above at a place where the peritoneum, covering the under surface of the liver, was adherent over a small area to that on the anterior surface of the kidney. The diameter of this area was about one centimeter. The direction of the peritoneal fold did not accurately correspond with the long axis of the appendix, but was more oblique, as is seen in the cut. The bulbous portion of the vermiform process might be said to begin just above the attachment of the fold.

In seeking an explanation for this curious arrangement of the vermiform appendix, in this peritoneal fold is obtained the key to the explanation of the conditions present. It would appear that for some reason localized peritonitis *in utero* caused an adhesion of the peritoneum covering the kidney with that over the liver. At a time when the cœcum was undescended the vermiform process lay close to this region of inflammation, although it was probably not actually involved in it, even superficially. It seems further necessary to assume that even at this early period, contrary to what is usually found, the greater part of the appendix lay behind the peritoneal cavity. If this were so, the point where the appendix came forward through the peritoneum to lie in the abdominal cavity would be well fixed. In the course of development, as the cœcum descended toward the iliac fossa, that portion of the peritoneum which lay over the area between the region of inflammatory adhesion and the place where the appendix became completely surrounded was stretched into the ligamentous fold seen in the adult. At the same time the proximal portion of the appendix, lying between the cœcum and most fixed part of the vermiform process, was drawn out more and more until it assumed the elongated form found in the adult. The distal part of the appendix lying above the fixed portion, and completely surrounded by peritoneum, was not subjected to this strain due to the descent of the cœcum, and so is found to have a bulbous appearance in the adult.

The somewhat peculiar form of cæcum present is compatible with this tension theory for the elongated vermiform process seen in this subject. The cœcum is very sharply bent upon itself, and its true apex, where the three longitudinal muscular bands come together, is directed vertically upwards behind the rest of the colon, and lies a little above the level of the ilio-cœcal opening.

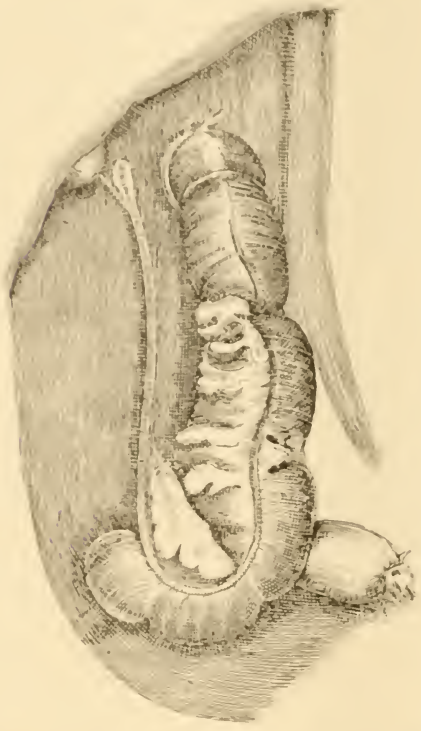
With regard to the length of appendix, which I have already stated was sixteen centimeters, I note that Treves,* from an examination of one hundred cases, gives the extremes in length as being one inch and six inches, or fifteen centimeters. Berry,† in a similar number of cases, found the appendix in two specimens thirteen and one-third centimeters in length, and he refers to a specimen nineteen centimeters long recorded by Ransohoff, and another twenty-three centimeters in length. From the number of observations which have been recorded on the length of the appendix one may safely say that only

*"Anatomy of Intestinal Canal and Peritoneum in Man," Hunterian Lectures, 1885.

†"The Anatomy of the Vermiform Appendix," *Anatomischer Anzeiger*, band x, 1895, p. 762.

very rarely does it exceed fifteen centimeters in length.

Perhaps the most remarkable fact noticed with regard to the vermiform process in this subject was its relation to the peritoneum. The variations in the normal arrangement of the peritoneum in connection with the appendix have received careful attention from Treves and Berry. The former considers that in some cases the appendix loses its mesentery and becomes enclosed in the same



Drawing to illustrate a rare condition of the Vermiform Appendix. The cœcum and ascending colon have been raised and turned towards the right, and the elongate appendix is seen passing upwards towards the liver. From a point just below the somewhat bulbous terminal part of the vermiform process a fold of peritoneum is seen passing upwards towards the under surface of the liver, and behind the gall bladder. To the left of the appendix is the ascending mesocolon.

fold as the cœcum; the latter, however, is of opinion that "the appendix is always entirely surrounded by peritoneum, and that it always has a mesentery: any possible exception is probably pathological, and in any case extremely rare."* As mentioned above, it seems probable that even at a very early stage in the development of this subject the greater part of the appendix lay behind the peritoneum, just as it did in the adult.

Lastly, with regard to the position of the appendix, Treves states that in eighteen per cent. of his cases the process passed vertically upwards behind the cœcum. In four the tip of the process came near to, if not into actual contact with, the under surface of the liver. He does not state whether in these cases the appendix lay to the left or, as in this subject, to the right of the ascending colon or its mesentery.—A. Francis Dixon, M.B., in *Journal of Anatomy and Physiology.*

* *Ibid.*, p. 767.

Dangers in Lean Meat.—Practical experience, as well as theoretical considerations, lead to the conclusion that a lean meat diet continued for any length of time is incompatible with health. Leading medical teachers in France are sounding the note of warning against the use of an exclusive meat diet in diabetes, a disease for which lean meat was formerly supposed to be almost a panacea. A close study of the history of these cases has shown that an exclusive meat diet is not infrequently a cause of death, through the accumulation of so great a quantity of ptomaines within the body that the kidneys are unable to cope with them. Professor Boofelt says:

> It is the duty of the physician who places his patient upon a lean meat diet to inform him of the fact that he is living close to the border line, and that his situation is like that of a man walking along the brink of a precipice; that he must on no account submit himself to the influence of an anæsthetic without first undergoing a few days preparation, including an entire change of diet; and the truly wise physician will further instruct his patient that it cannot be safely adopted as a continuous dietary without the risk of constitutional injury. —*Maryland Medical Journal.*

Diagnosis of Measles.—There is a sign of measles almost entirely ignored found in the mouth and that precedes the skin eruption. This is an eruption on the mucous membrane lining the lips and cheeks, consisting of small irregular spots of bright red color. In the center of each spot is a minute bluish-white speck. These red spots, with accompanying specks of bluish-white color, are absolutely pathognomonic of beginning measles, and when seen can be relied upon as the forerunner of the skin eruption. Sometimes there are only a few of these red spots with central bluish point, but in marked cases they may cover the whole inside of the buccal mucous membrane.—Koplik, in *Archives of Pædiatrics.*

The Medical Age.

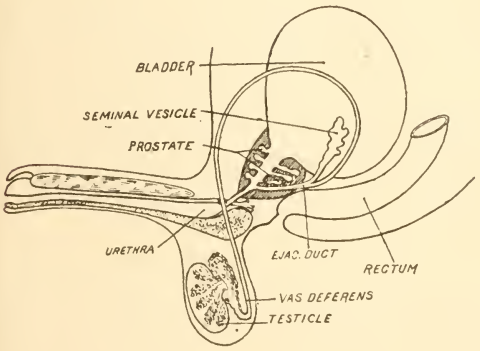
Vol. XV. DETROIT, JUNE 25th, 1897. No. 12.

Original Articles.

SEMINAL VESICULITIS AS AN OBSCURE AND ELUSIVE DISEASE.

BY BRANSFORD LEWIS, M.D.

Spermatozoa are manufactured in the testicles, gradually, slowly, after the method of working followed by the various glandular organs of the body. They are as gradually and steadily carried by the two little tubes called the vasa deferentia, which run upward through the inguinal canal into the pelvic cavity, where they converge at the back of the bladder, coming almost together just



Adapted from Stewart's Diseases of the Urethra.

behind the prostate. Just outside of their converging portions, also lying against the posterior surface of the bladder, are the two seminal vesicles. They are pouches, blind above, but with openings directed downwards, where they are joined by the converging ends of the vasa deferentia previously alluded to. It is into these little pouches that the spermatozoa are conducted by the vasa deferentia. While resting there, awaiting sexual intercourse or nightly emission to precipitate their discharge, the fluid secretion of the vesicles is added to them, giving them a chance to practise that wriggling motion that later plays such an important part in keeping up the census increase of nations.

Leading from the point of junction of each vas deferens and corresponding seminal vesicle is a little tube called the ejaculatory duct, which runs forward and, with its fellow of the opposite side, tunnels through the prostate and opens into the urethra just in front of a small knob called the veru montanum, situate in the prostatic portion of the urethra. In seminal ejaculation this knob, which like the rest of the sexual apparatus undergoes erection and enlargement, steers the spermatozoa forward along the urethra instead of allowing them to run backward into the bladder—and get swamped and drowned at their very start in life. They go forward in the urethra as far as the cup-like bulb of that organ, which is gradually filled with the inflowing semen; and it is the successive spasmodic contractions of this bulb, working like a Davidson syringe, that expels the semen in a series of jets.

The seminal vesicles, then, are simply two bags for the temporary retention of the semen; and they connect with the urethra through the ejaculatory ducts. It is through this connection that seminal vesiculitis most commonly arises—*i.e.*, by an infection traveling from the urethra up the ducts and into the vesicles.

Of late years it has been learned that such infection, with consequent inflammation either acute or chronic, is much more frequent than was formerly thought to be the case; and many other things have been learned about inflammation in these little pouches—which I shall not speak of here, however, as I intend simply to try to illustrate by an object-lesson of two or three cases the importance and perhaps the difficulty of recognizing the disease when it is present.

Case 1.—F. D——, American, aged 26, married, consulted me February 5th, 1896. He was extremely conservative and regular in his mode of life, having no habits of drink or diet that would subject him to disease. A former urethritis, contracted in 1892, had disappeared after about four months' duration; and that was the only time he had been affected in that manner.

Some time in 1894 patient began to notice an aching pain which began in the right inguinal region at Poupart's ligament and ran outwards and upwards above the right iliac crest towards the sacrum. This pain was slight at first but gradually increased to a degree that made it very annoying. It would be most pronounced early in the morning, sometimes awaking him out of a sound sleep; but later in the day, after he had been up for a time and had begun his day's business, it would wear off and give him no trouble. The next morning, however, would find it returned in all its vigor and incisiveness.

He consulted his regular physician, who for a time considered it a digestive disorder —with which he had, in fact, been affected at times; but treatment on this diagnostic basis did no good for the pain. The liver was stirred up, but the pain continued; the rectum, the kidneys, bladder, urethra—all had a turn for investigation, but nothing was discerned to account for the pain. The patient consulted with and received treatment from several other practitioners—specialists —one of whom put him through all kinds of analytical tests, such as washing out his stomach, pumping him up with hydrogen, and then auscultating and percussing his abdomen in a comprehensive way. But the pain came back each morning. Often it was so severe as to require his getting up and walking the floor at about 4 or 5 A.M., or to necessitate the application of hot stupes or poultices, but these gave only temporary benefit.

When the patient consulted me he had been a sufferer for nearly three years. Physical examination disclosed nothing amiss until I got to the urine; and unless one were observing closely he might very readily overlook the slight clouding present in the two specimens (first and second portions of the same urination). Indeed, he had gone through one or two life insurance tests without it being commented upon. Under the microscope, however, the import of this clouding was shown in its proving to be pus-corpuscles—indicating a very small degree of chronic posterior urethral irritation.

On digital examination in the rectum the prostate was felt to be very slightly boggy but approximately normal; while running upwards and outwards from the base of the bladder were two tender, full, cord-like bodies, readily recognized as chronically inflamed seminal vesicles. The right one was most severely affected.

By a process of "milking" with the forefinger, about a dozen drops of whitish-looking fluid were expressed, which oozed from the meatus into a little butter-platter held under the penis. Microscopical examination of this fluid showed it to contain pus in clumps and isolated; spermatozoa; small, medium and large flat epithelium; and masses of detritus from the vesicles and prostate follicles.

The diagnosis of chronic seminal vesiculitis was then made for the first time. As to the bearing of this condition on the pain I was conservative. Without directly promising anything I said that it might very possibly be the entire cause of the trouble, in which case good prospects for relief would be offered.

He was subjected to periodical massages of the vesicles and prostate, to electrical applications by recto-abdominal electrodes, and to hygienic and dietetic regulations.

In a month he was so far improved as to leave no doubt about the correctness of the position taken; and six months later the pain that had been his daily companion for three years returned only occasionally, and then only in a very mild degree. For the last six months he has been free from it, with the exception of an occasional very vague feeling that acts as an indefinite reminder that he once had a pain in that site.

It is rather unusual for seminal vesiculitis to be the sole factor in the case, as in the above instance; it more commonly presents itself in connection with inflammation attacking other parts of the genito-urinary apparatus, such as the posterior urethra, prostate, epididymis, etc. And in that case its symptoms, which are often mild and unpretentious, are masked by the more pronounced or more familiar ones of the other malady, and it is overlooked on that account.

Case 2.—C. M——, American, aged 33, clerk, single, came to me January 20th, 1897, saying that he was becoming very tired of a chronic urethral discharge which had been persisting for the last seven years. During the last year he had been receiving what had seemed to be skilful treatment at the hands of one of the general surgeons of the city,

but without stopping the discharge. Deep injections, antero-posterior irrigations, and urethral sounds had all been used methodically, yet with only the result mentioned.

My examination disclosed that in addition to an antero-posterior urethral inflammation, there was an active chronic inflammation of both vesicles; on milking them fluid containing blood, pus-corpuscles and inflammatory débris was expressed. Treatment applied to these as well as to the urethra caused cessation of the discharge within a very few weeks.

Not a few cases of persistent, excessively frequent and debilitating nightly emissions that are treated—or rather mistreated—with bromides, spinal douches, etc., are due to chronic seminal vesiculitis, with or without antecedent venereal history.

Case 3 was one of seminal vesiculitis with excessively frequent nocturnal emissions.—C. A. H——, American, aged 20; clerk; unmarried; patient kindly referred to me by Doctor John A. J. James. Asserted he had never had any venereal disease—not even an intercourse. From his thirteenth to fifteenth year he had masturbated almost daily; after that he discontinued the practise. In 1893 he began to notice that nocturnal emissions were occurring rather frequently, and later on became convinced that they were overstepping the limits provided by Nature for the release of unused seminal fluid.

For about six months he went to an advertising quack, who gave him internal medicine and passed sounds periodically, with no benefit. The emissions increased in frequency up to three or four a week, and after having them he would feel very debilitated and incompetent for work.

In February, 1895, he was examined by me, with the disclosure of marked chronic seminal vesiculitis on both sides, although the urethra was approximately healthy, giving clear urine on making the double-glass urine test.

By appropriate treatment the emissions in a month were reduced from three or four weekly to one in a week or ten days, and there was coincident disappearance of the debility and enervation left by them.

Such cases are not at all infrequent among young men; and they are the ones who, by the profession's one-sided views on this subject, are fairly driven to seek the preying and dishonest services of advertising quacks.

I am firmly convinced that the general profession is too prone to scoff at the complaints of youths afflicted in this manner—to pooh-pooh the idea of their having any sexual derangements, and attribute such "notions" to their reading the dodgers and handbills of charlatans. Instead of doing this offhand they should investigate each case for itself fairly and searchingly, and arrive at an understanding, in the first place, as to whether there is or is not an abnormality of that kind sufficient to make a disease-manifestation; and next, the exact source of that manifestation. If that were conscientiously done many a young man would be saved from the buzzard grasp of the charlatan.

I have the records of eighteen cases of seminal vesiculitis that present an almost unbroken rank of mistaken or incomplete diagnoses on the part of my predecessors in their treatment; and they make strong testimony on the subject of seminal vesiculitis as an obscure and elusive disease.

To be candid I must confess that it is only of late years that the frequency and importance of seminal vesiculitis has been understood, even by the specialists in this line of practise; so that even now the subject of treatment has not arrived at that stage of precision and satisfaction that is highly desirable. The cure of a chronic vesiculitis requires time, much care and patience, and precise execution of the "milking" process used for expressing the contents of the vesicles, together with properly adjusted massage to the diseased organs for its resorptive effect. And to these means I have added what I have not seen mentioned in the writings on this subject, viz., the use of Faradism through rectal and abdominal electrodes.

As with other complications of urethral gonorrhœa, such as epididymitis, orchitis, etc., the complication should be treated and alleviated to a certain extent before the cure of the urethral inflammation is attempted; therefore in case of urethritis and vesiculitis existing at the same time the vesiculitis must take precedence in attention.

The various hygienic instructions that are generally known as requisite for improvement in gonorrhœa must be given—that is, conservatism must be observed in diet, exercise, use of tobacco, etc. Hot rectal injections taken with a fountain syringe every evening will not only keep the bowels open

but will afford direct stimulating heat to the inflamed vesicles and posterior urethra. Suppositories of ichthyol, belladonna and morphine give grateful ease in acute cases.

The massage is best carried out in the following manner: Having passed only a small portion of his urine, for before-and-after contrast, the patient leans over the back of a straight chair; the right forefinger of the operator is then inserted into the rectum with the palmar surface downwards. With the right elbow braced against the right knee, which is held in an elevated position by the foot resting on the rounds of a second chair, enough force is easily secured to overcome the resistance of the perineal muscles and allow the finger to reach high up. When the base or blind extremity of a vesicle is felt through the anterior rectal wall in this way it is gently and firmly pressed upon as the finger is withdrawn, the "milking" effect being thereby produced; it is repeated once or twice, and then the other vesicle is similarly treated. External evidence of the effectiveness of this treatment is had in the oozing of mucus in drops from the meatus—to catch which for examination, etc., I have a small butter-plate held under the penis by the patient himself. The patient next passes the remainder of the urine into a second glass. This washes the urethral channel of the vesicular fluid that was left in it, producing a clouding that is often very different from the clearer urine passed before the massage.

This mechanical part of the treatment should be carried out about once in five or seven days; not oftener, as it is liable to prove irritating.

Instruments have been devised with which to do the massage, but I prefer the use of the finger simply for the assistance that the sense of touch gives in the maneuver.

In carrying out the electric application one electrode is placed in the rectum, the other on the lower abdominal wall, alternated between the right and left inguinal regions, so as to reach both vesicles in turn.

The best that can be obtained from internal treatment is the general benefit of increased resistance derived from non-alcoholic tonics.

Seminal vesiculitis that is actively suppurative and markedly rebellious to other treatment sometimes requires incision and drainage through the perineum.

1006 Olive street, St. Louis, Mo.

FATTY ILLS AND THEIR MASQUERADES.

BY EPHRAIM CUTTER, M.D., LL.D.

About twenty years ago I consulted some eminent Boston oculists as to the cause of cataract, and all agreed it is a "degeneration," though of what kind they knew not. I got quite a number of cataractous lenses from ophthalmic surgeons, studied their morphology and photographed them, and with the result that I decided it must be due to a fatty degeneration. The microphotographs I took show it. Later mentioning this fact to Baltimore oculists they at once declared our German *confrères* had arrived at the same conclusion. Accordingly I think it is safe to include cataract among fatty masquerades. If it is natural to expect fatty degeneration in the cornea—*i.e.*, arcus senilis—much more is it to be expected in the crystalline lens which obtains its nourishment through its capsule by inhibition, and is a hyaline, glassy, chitinoid substance to begin with. The dislocation of the crystalline lens by a blow retards and impedes the circulation needed for its nutrition and thus produces traumatic fatty degeneration or cataract. The obliteration of the ocular arteries by the deposit of fatty or calcareous matters must impede the circulation in the eye and promote the fatty degeneration. In London, in 1889, I asked Sir Benjamin Ward Richardson whether did not both he and Doctor Weir Mitchell, the former in 1852, the latter in 1861, produce cataract in ten minutes by injecting a teaspoonful of a saturated watery solution of sugar under the skin of a frog or a guinea-pig. He replied in the affirmative, adding the result was produced "even quicker than that!"

It seems incredible that so generally used a substance as common white sugar should produce cataract in so short a time, but the facts are well authenticated and need no repetition unless in penal physiology on man. Sugar works right in the line of producing fatty degeneration in food, and should not I

think be so recklessly and profusely used as now. A teaspoonful of sugar in tea or coffee, taken by a case of Bright's disease where the morphology of the urine has become normal under treatment, must be expected to bring back the abnormal morphology; in any event this is the way to detect such lapses in diet of patients unless they have become firmly established in the way of cure. In my opinion the defective organs of vision common among schoolchildren are due to feeding upon carbohydrates in excess. Probably the behests of social ethics in putting sweets to the fore as food has had more to do with the production of lenticular troubles than any other cause. Avoid the use of sugars in excess (better altogether) if you want good crystalline lenses. No "sugar trust" to help bring on fatty ills for me!

Circulation impeded from embolism is another fatty ill. Thrombi and emboli are made up of fibrin filaments which are large and massive, in threads curled upon each other by rotation and twisting in the circulation of the blood. Often these emboli embrace within their substance colloid jellies, crystals of oxalate of lime, triple phosphates, etc., which are formed in the blood. Emboli are also made up of white blood-corpuscles in addition; their huddling together in the blood under the microscope is regarded as a sign of embolism (there are emboli of fat).

The conventional idea that thrombi are formed in and on the valves of the heart by some action of these same valves is probably incorrect; more likely that the edges and angles of the valve surfaces present mechanical arrangements whereby the clots or thrombi already formed are caught, incorporated together, and grow; this is rendered more feasible because the blood-stream makes a full stop at the ventricle funda, and is reversed in its direction. During the instant of stasis or stopping an opportunity is given for the adhesive fibrinous masses to be caught on the edges of the valves, especially if the valves are sticky. The valves do not originate the thrombi from the normal subtile, all but invisible, fibrin filaments of the blood, but accrete them from the larger, coarser and more massive abnormal fibrin filaments caused by the action of sour fermenting food in the alimentary canal.

It is easy to see from the foregoing how the circulation is impeded by emboli, and how the parts supplied by this impeded circulation may fattily degenerate; at the same time I do not claim that all the results of embolism are necessarily the result of fatty degeneration, but only that some of them are and must be. By taking in this idea can be understood the importance of regulating the diet in all cases of embolism; and diet and embolism together constitute an American idea destined to honor the practise of medicine everywhere and for all time to come, it being one of the most important dicta of this or any age that embolism can be induced at will by feeding fermenting foods, and likewise that embolism can be cured by feeding on food that does not have acetic acid fermentation—food that requires the minimum of vital force for Nature to work with in the functions of the living human body. In this way there will be no growth of excessive alcoholic and vinegary ferments, which are found associated with thrombosis. It is easy to understand how emboli and thromboli are causal of fatty degeneration, because they mechanically obstruct, retard and impede the functions of all organs whose blood-vessels they block up.

Intestinal concretions, many of them at least, are made up of the fat acids accumulated from the food eaten—the morphology of the fæces shows crystalline masses of stearine and other fats; also of triple phosphates, uric acid, urate of soda, stellurine, sugars, oxalate of lime, cystine, pigment matters, etc. Other intestinal concretions are calcareous. In the Museum of the Royal College of Surgeons, London, there is probably the largest collection in the world of intestinal concretions, and some weigh sixty and even ninety pounds. The close relation between fatty and calcareous degenerations makes their association in concretions not strange. A recent patient produced concretions from the bowels which had been termed "gall-stones," but as they were always voided after the drinking of olive oil, and their structure was made up of minute oil globules, it was evident they were partially digested masses of olive oil fats.

When a patient complains of general debility or general weakness and no sign of physical trouble appears but those of fatty degeneration in a mild degree, it seems rational to regard this lesion as the causal one. I have now a case of premature fatty degeneration of this kind. She is a good patient, but has an almost incontrovertible opinion that nothing will do her good and that she will never be any better; not that she objects to this on philosophic grounds, or is not reconciled to the situation. I find as the signs of fatty degeneration clear up this mental debility clears up also; still I have hard work to persuade her to continue in the prescribed course to replace the normal tissues. Of course general debility has other causes, but so long as it masquerades in fatty ills it has a place here, and not to be forgotten.

In a recent case where certain physicians signed a certificate that the patient "suffers from post-paralytic dementia which would induce homicidal mania," the probate judge was asked to deprive this wealthy man of liberty and property; and both these physicians on oath stated that the man's brains were "rotten, *i.e.*, softened and decomposed," yet gave no clue to the real cause or essence of the supposed rottenness. The case was compromised. Had it gone on the other side would have testified that while there were evidences of fatty degeneration in the brain yet there was no dementia nor homicidal mania. Admitting dementia, would it not have been better to have said that the "rottenness" came from one of the forms of fatty degeneration, as is usually the case—in other words, would it not have been wiser to have affirmed that the circulation in the brain was impeded and retarded by fat metabolism or by embolism plugging an artery with fibrinous concretions, impeding circulation; or that the resulting want of proper nutrition interfered with the functions of the ganglionic nerve centers whereby they would not cerebrate normally nor have the capacity for normal judgment or reason? As a matter of fact the experts summoned by the defendant, who saw him in an unbiased way, could not agree with the above dictum. The hemiplegia of the right side some six years previous, which Nature cured spontaneously, and the hemiplegia of the left side in 1887, the urinary and blood evidences, were in favor of the lesions being due to fatty degeneration. As to the idea of homicidal mania following hemiplegia, one expert said it was simply ridiculous, as the usual course is the other way. When it comes to be generally known that dementia in many cases is nothing but the result of a fatty degeneration and that fatty degeneration is curable, new light will be thrown on this malady; indeed the treatment of this case on the plans here advocated resulted in removing the stigmata of fat metabolism, with marked improvement and conference of force, so that he survived the trials of one of the most terrible adversities a sane man can be subjected to. If a brain is unsound we must expect unsoundness of mind, but it makes all the difference in the world if those who treat it do so merely by name instead of elucidating the real cause under which it masquerades.

When a case of diphtheria presents albumen, fatty epithelial and casts in the urine, while it may not be a masquerade such as I have been considering, it comes near enough to it to be treated clinically as such, for the cure is not complete until the signs of fatty degeneration are removed by systemic treatment. It may be that the poison of diphtheria does impede, obstruct and make languid functions, and thus becomes a cause of the fat ill; but however this may be, clinically speaking, the treatment should aim to remove these causes. I venture to predict far better results when this principle is utilized. It is much better to treat diphtheria beforehand by feeding so as to have healthy people on whom diphtheria can have no power.

Strictly speaking dropsy is not a disease but a result of obstructed functions, that of circulation for one. So long as the profession employs the term clinically (and the laity think it a most fatal disease, as a rule giving up all hope of help on its professional announcement) just so long when it is present it must be referred to as a pathological entity at the bedside. It is known as œdema, anasarca, pleurisy, cardiac effusions, etc., acute or chronic according to amount, location, and time. The whole human body is wrapped in an environment, outside and inside, of interlaced webs, nets, membranes, and fascia made up of white fibrous tissues,

straight, wavy, and curling, serving to keep the soft parts in place; the interstices form areolar spaces mechanically dilatable and expansible, capable of distention by air, called emphysema; by fat, called obesity; by osmosis of blood-serum, called dropsy. From the top of the head to the soles of the feet these areolæ communicate with each other, so that puncturing with a knife through the inside cheek mucous membrane to beneath the skin the subject can inflate the whole body surface with air; and thus a drowning man could make a life-preserver under the skin; more, this process has been recommended to protect from drowning, though it must be feared the application would be impossible or impracticable to say the least!

It is well agreed that where there is obstruction to functions, specifically of the blood circulation, the sanguineous serum is apt to exude and collect in the areolar spaces referred to, especially in the lower parts, by gravity, and where there is fatty degeneration. Indeed I cannot recall a case of ascites or anasarca where some evidence of fatty degeneration was not present, which is not strange, considering the fact fatty degeneration ills come from retarded and impeded functions, especially of the vascular system. So dropsy and fatty degeneration have the same parentage and hence belong to the same family. There is no good reason for the masquerading of dropsy, especially as it frightens people. From the cases of dropsy I have seen treated as masquerades of fatty ills I feel warranted in formulating the foregoing conclusions. I have seen cases of dropsy recover when, humanly speaking, they would have died under conventional treatment, and thus dying would have given cause to the panic of mind that exists in the laity when swellings and watery bloats proclaim to all around the distention of the areolar tissues and great cavities specially described by the terrible word "dropsy."

I am not sure but fatty degeneration has a good deal to do with dropsies from inflammation, as pleurisy, pericarditis, peritonitis, synovitis, etc., coming of course from obstruction by deposits of coagulated lymph, for I have found fatty deposits in pleuritic effusion so copious as to line three-fourths of an inch deep the chest-walls of the left pleura. Also by the plans for treating fatty degeneration I have within two months effectually relieved two cases of chronic fistulous pleurisy when it had been proposed to excise a portion of the ribs as a last resort.

The following from the pen of the late Professor Joseph Jones, M.D., LL.D., of New Orleans,* evidences that vegetable food will induce dropsy in the yellow-bellied terrapin (*Emys serrata*), previously carnivorous:

> Starved for four weeks in a tub of water, then fed forty-two days on purslane (*Portulaca oleracea*). Blood color intermediate between arterial and venous. Serum changed from orange to light yellow. Cellular tissues permeated by serum. Abdominal and chest cavities contained large amounts of this serum. Albumen, fatty and extraction matters, 45.38 in 1000 parts of blood. In another terrapin starved for twenty-eight days, and then kept in water and on purslane eighty-eight days, weight 27.125 grains. Serum was light yellow. Two fluidounces of serum in pleura and areolar tissue along back. Black and brown masses in pancreas contained large yellow composite cells, globules. The only cause that can be assigned for this degeneration of structure (fatty, crystalline, cancerous) is the character of the food. I have never noticed this in normal terrapin.
>
> Other terrapins which had been treated in a similar manner were examined, and the results in every instance corresponded with those detailed as above.
>
> In most instances the solid constituents of the blood were less under a vegetable than under an animal diet.
>
> The intestines are small in carnivorous and large in frugivorous Chelonians. . . . Another marked effect in a change of diet was the production of dropsical effusions.

Vegetable food in excess then is a chief cause in producing dropsies and fatty ills in man.

All the cases of epilepsy I have studied have presented the stigmata of fatty degeneration at different periods of time, but not all together. Dr. M. G. Wheeler of Chelsea, Massachusetts, tells me that he never had a case of epilepsy without albumen in the urine! Now while albumen alone does not complete a diagnosis it makes it very probable that a careful morphological study would have supplied the missing links of diagnosis of fatty degeneration. Again the disappearance of

*"Investigation, Chemical and Physiological, Relative to Certain American Invertebrata," Smithsonian Contributions to Knowledge.

all the signs of fatty degeneration has been followed by the cure of epilepsy, or to put it differently, the epilepsy was not cured before the said signs disappeared; it is probable that they had something causal to do with the cases. At any rate they are good enough clinical clues to unmask a masquerade.

Since gall-stones are made up of cholesterine, a fat acid, they come within the same scope. Cholesterine is a normal product of the liver, and should flow off in solution into the small intestines; but when it accumulates in crystalline masses enough to clog the gall-bladder, not to say the gall, mechanical obstruction is formed to the circulation of bile as well as of blood. Gall-stones must thus cause the fatty degeneration of the gall-bladder which cholecystotomists report as a great trouble in their operations. but this is rather a result than a cause. The cause lies deeper in the same kind of food referred to above and also in not having water enough in the system to keep the saline bodies and fats in solution. Hot water is one of the best promoters of intestinal secretion; it keeps the liver well washed out, removes the gases from fermenting food which paralyze the alimentary canal and abdominal viscera. Thick liquids flow less quickly than thin. If, for example, when the bile is inspissated and thickened so that the gall-stones crystallize out, as salt does from watery solution when the water is evaporated, one way to relieve this is to use plenty of distilled water, which contains no salts and which will thin the bile. Indeed, calculi or gravel of the blood, urine, salivary glands, intestines and other parts may all be rationally treated on the plans of quickening a retarded circulation by the use of hot water. In the words of Doctor A. H. Ferguson, of Chicago:*

Let the physician who is in the habit of saying to his patients suffering attack upon attack, "Oh, it is only gall-stone colic," study these changes and then apply the postponement of seeking surgical relief to his own person!

The Golden Rule is aptly befitting.

Can the milder forms of cholelithiasis be cured without the knife?

Why not? Why does this fatty excrementitious substance (cholesterine) not go on to its stercoraceous transformation and not form stones in the biliary system of ducts? Is it a conservative act on the part of Nature to prevent absorption of the constituents of the bile in catarrhal and obstructive conditions of these ducts?

What is the relationship of cholelithiasis and gouty and uric acid diathesis?

Not water enough.

What local or blood changes predispose to their formation?

Retardation and impeded motion for want of liquidity.

What diet, medicine, or hygienic surroundings might prevent them?

Beef broiled or roasted and hot water, and medicine sparingly as indicated. Solve that question and the surgeon's knife, needle, or button will happily be less in demand. Better solve it with distilled water.

Experimental researches in these directions are very enticing and should bring forth most beneficial results.

They have already been made, and this whole paper is a reply.

Probably never was the term "heart failure" more popular than now, yet it really means little in itself, for death by a bullet through the heart is "heart failure;" or, if the heart were so embarrassed with fibrinous concretions and valvular lesions as to stop, it still would be "heart failure." The title expresses a result, not a lesion or a cause. But it *is* used as a cause, and must be accepted so long as it is used clinically, however much one may dislike its not representing actual conditions or history.

From the fact that so many people live on food which is calculated to give fatty degeneration by impeding the circulation, not only may the heart fail because it cannot overcome the obstacle, while it tries hard to do so, but in most cases it probably is itself weakened by the substitution of fat in place of its muscular tissues. The fat sometimes found in and around the heart, if it does not replace other tissues save by pressing on them, is not to be regarded as a fatty ill, but rather as obesity.

---

* *The Journal of the American Medical Association*, January 19th, 1895.

In my opinion in many of the cases of so-called conventional "heart failure" the failure is due not only to the fatty ill but to the direct paralyzing influence of the stomachic and intestinal gases acting on a previously weakened or fatty heart. Secretary Windom's death at a Delmonico banquet during an after-dinner speech may have been one of these cases. So far as I could learn he had symptoms of fatty degeneration before he had eaten this dinner—he used his forces to make a speech before the food was digested; he took away force from its work of digesting food, the stomachic gases acted by osmose, paralyzed the heart, and it failed. Such an accumulation of gases in the stomach is common at two or three o'clock in the morning. Doctor J. Marion Sims and others have died of "heart failure" at about this hour and probably from gas accumulation acting on the heart as just noted. Could draughts of hot water (which have wonderful effect in causing stomachic and intestinal muscular contractions and by starting the "wind") be freely imbibed many of these cases could probably be saved by thus removing the immediate cause. Cold water will also expel gas, but not nearly so readily. It is more probable that the heart would not succumb to this depressing influence were it not itself more or less fattily degenerated. Both Secretary Windom and Doctor Sims were at a time of life to have fatty ills. I know Doctor Sims ate things that would produce fatty ills. Striking his breast he once replied to my remonstrances, "I can eat anything." So also died that great physician Doctor Louis Elsberg, after I had relieved him of all signs of fatty degeneration, masquerading as Bright's disease of the kidneys; he acknowledged his cure but insisted upon eating what he liked. So also died another friend lately of fatty degeneration, though he asked for but would not receive the gospel of food salvation from his fatty ills. He said, "I am in the best hospital in the world," yet they gave him the very things to eat which kept his heart fattily enlarged and weakened.

Why should fatty heart masquerade as "heart failure?" Why not come out and make names as chemistry and commerce name things? By special invitation Doctor Da Costa lately gave a lecture on weak hearts to the Medical Department of the University of Pennsylvania, at which the Provost, Doctor Pepper, and other dignitaries were present in honor of the occasion. In this lecture the diagnosis of fatty degeneration was based on "elderly gouty subjects, rigid arteries, and flabby tissues, with breathlessness on slight effort, as going up ascents."

The moment that it is conventionally understood that fatty ills are at the bottom of heart failure, that moment will there be a chance for more rational treatment. This is said notwithstanding Doctor Da Costa's dictum that "in the fatty heart the disease may be palliated, but in the end it is fatal." I speak from personal experience.

Now regarding deaths from heat. The *New York Tribune* of August 14th, 1896, reported a policeman found dead. Foul play was feared, but an autopsy showed that

> Death was due to heat, to which . . . he was especially susceptible on account of fatty degeneration of the heart. . . . He was fifty-three years old. About four months ago he had a slight stroke of paralysis and a fall. . . . There were charges pending against him at police headquarters for having been found asleep . . . when he should have been on duty.

In the same issue there is an account of the sudden death of Henry Van Derewde, apothecary manager, found dead by a clerk, who in two hours after was himself found unconscious. The death and the prostration were due to the excessive heat. A policeman found the clerk lying insensible on the floor by the side of the dead body he sat to watch. The coroner and the examining physicians certified that death was from apoplexy superinduced by heat. This puts the case on record as a fatty ill.

In the other case the paralysis and improper sleep, with the condition of the heart, suffice for the same diagnosis.

It is a question, If they had been perfectly healthy would the heat have killed them? I trow not. Their bodies were rotten with fat metabolism; they succumbed as a decayed post is easily overturned by a blow. There is no doubt that the heat was sudden and excessive. It has been said that more deaths of men and animals were reported in New York during this heated term than ever before. Horses died by the hundreds.

If the cases were all like these reported here, then they were masquerades. People eat largely of carbohydrates during hot weather, because they think animal food unseasonable, a conclusion I doubt. Carbohydrates burn up and make heat; ice cream is good to produce warmth; salads easily ferment. Lean meats broiled or roasted build up the entire body and give energy to replace the tremendous waste of salts carried off in the greatly increased sweat action. Again, outside of the loss of force by sweating people are directly prostrated by the action of the excessive heat on the nerve centers. The practise of the writer and corroborator has been to prescribe lean meats broiled or roasted, with boiled potato or toasted bread or rice; no ice water, but cool drinks if desired; but hot water quenches thirst best of all things.

Hebetude or listlessness and slow movements I have seen in fatty ills. One patient who had Bright's disease and was a multimillionaire said he was so lazy and slow-going that he thought of hiring a man to go behind him and apply a horsewhip when he lagged. This case was entirely relieved of the signs of fatty degeneration, when he said he could "run" his own case, and he did — "run it under ground" in less than two months.

I have great sympathy for lazy people. Often if some patients could be lazy they would get well faster, but as I grow older I am more and more convinced that the hebetude and laziness in question might be traced to fatty ills, because the sufferers have no reserve power, soon fag out, and are listless for very good reasons—*i.e.*, the loss of muscle fibers and nerve force from interstitial substitution of fat for the nervous and muscular tissues.

Hæmatophilia is another masquerade of fatty degeneration, as is any form of bleeding or hæmorrhage due to rottenness of blood-vessels of the capillary and venous kind, which rottenness arises from a substitution of lardaceous, waxy, or steatomatous elements. It may be said also that where the extraction of a tooth threatens life because of profuse hæmorrhage, it comes under this head.

Hemiplegia, or palsy of one-half of the body, is a common masquerade of fatty degeneration of the muscular coat of the basilar arteries, as before explained. The pressure made by the extravasated blood on the cerebral substance exerts by decussation a paralysis on the opposite side of the body, and sometimes of the same side of the body. It is associated with apoplexy, and is mentioned here by itself because the name is used by the bedside clinically, and is generally regarded in clinical medicine as a disease by itself. The severity and persistence depend on the topical character of the effusion, as copious or limited in extent.

The treatment of hemiplegia rationally comes under the head of fatty degeneration, as I have taught for many years. It is unwise to expect cures while causes go on at work just the same as before the treatment.

Hyperæsthesia, again, is another general masquerade. The following case is adduced in evidence:

December 30th, 1894, a dentist of New York died at the age of about 71 years; had been ill for more than four years. His blood at the outset had shown oil from beneath skin, and fat in the white corpuscles. Albumen, fatty epithelia, and kidney casts were occasionally found in the urine, singly and together. When free from albumen, casts, and fatty epithelia, catarrhal discharges would be present in the urine. At times the urine would be normal. It should be said that this urine was carefully studied by me daily for months. By partial treatment the abnormal forms and albumen were mostly removed, and there was an improvement in health.

Two and one-half years later he had in the right side of his neck a large chronic diffusive abscess which dissected in between the muscles and fascia below the mastoid process, and afterwards apparently healed. Then the right lymphatic and submaxillary glands became involved. The parts under and at the right angle of the lower jaw were swelled, thickened, and hardened. The aspect was so malignant that after aspirating and obtaining naught but blood a doctor of New York pronounced it cancer. This opinion was sustained by the terrible hyperæsthesia of the mouth, tongue, and throat; by a catarrh of the parotid and salivary glands, which was constant, copious, and agonizing; by cachectic appearance; by emaciation; and by this distinguished surgeon's large experience with cancerous submaxillary glands, he having extirpated over two hundred. To be

sure, crenated pus without cancer-cells was found a few days after over the site of aspirated puncture.

Later the doctor, in my presence, aspirated thoroughly again. The needles brought forth a bloody fluid, which microscopically showed oil in large and small globules, curling fibrous tissue resembling lung tissue found in sputum, free red and white corpuscles, and fibrin filaments massed in threads and clots.

This would appear to have been a fatty ill from the fact that the two aspirations were followed by no malignant changes; that the dense lymphatic swelling would diminish and increase from time to time; that there was never any unpleasant odor; that there was no previous history of cancer; that there was unmistakable evidence of fatty degeneration for years before; that the lymphatic glands could have been inflamed from the dissecting cervical adjacent abscess, as in other cervical abscess histories; that save redness and hyperæsthesia the oral cavity and pharynx were normal; that the tongue was soft as silk and its glands were free from induration; that the hyperæsthesia was beyond all evidence visible to careful inspection; that the gentlest touch of his whiskers, nose, forehead, site of diseased glands, indeed all over the body (he could not bear to have vaselin rubbed on his feet or toes), caused agonizing subjective pains; that he persisted in asserting that it was agony for him to swallow (dysphagia) anything, to move his jaw, to speak, etc. From these things the writer could not concur in the diagnosis of cancer, but said that in his opinion it was a case of lymphadenitis with fatty degeneration, including hyperæsthesia and hypersecretion of the salivary glands.

The morphology of the oral discharge, studied very often, showed mucous corpuscles, bacteria, pavement epithelia, red blood-corpuscles, white blood-corpuscles often with red blood-corpuscles inside of varying sizes, that appeared to come from the diseased lymphatic glands, which I regard as red blood-corpuscle makers—*Leptothrix buccalis*, —crystals of the triple phosphate of lime, magnesia and soda, and the aniline blue and emerald green pigment matters that are found in connection with fatty degeneration in the blood especially along with portal obstruction.

The hyperæsthesia was as bad as any uterine hyperæsthesia I ever saw, and this is saying a good deal; it was the great and most prominent symptom in the case. At first I attributed it to the rare overaction of the salivary glands, that weakened them and then translated their neurasthenia to all other parts, as is seen in cases of nervous prostration of uterine origin for example. As further evidence that this case was a masquerade of fatty degeneration I may add an autopsy revealed the right angle of the jaw standing out and away from the tumors as if there were no tumors; the hardened subdermal lymphatic gland was only half an inch in diameter, cut with a slight grit, under microscope showed white fibrous tissue straight and curled, some granules of fat, no elements of cancer form—indeed such had never been found in this case by me. The submaxillary gland appeared like a fatty kidney, somewhat dense in feel to the knife. Under the microscope the glandular epithelia were found filled with fat in large and small globes and in granules much the same as the fluid obtained by the second aspiration presented; besides, the stroma or parenchyma of the gland was studded with immobile fat granules, while the fluid fat granules presented automobile movements such as are seen in milk. The glandular structure was homogeneous, save this heterologous tissue. The cells appeared like liver-cells secreting fat. The gland was evidently fattily, not cancerously, degenerated. The forefingers of both hands successively introduced through an opening made at the right angle of the lower jaw fully explored the pharynx and base of tongue. No enlarged lingual glands nor lingual induration were found. The larynx was felt to be normal. Arytenoid cartilages, epiglottis, and glottis unaltered. Vomer and nares normal; dome of pharynx normal. The interarytenoid band and the anterior wall of the mouth of the œsophagus were not thickened nor abnormally changed. Doctor John A. Cutter verified the examination, and had the case been cancerous the exploration should have shown it.

But the question is, how can this terrible hyperæsthesia be explained better than by considering it not at all as coming from cancer? Cancer does not usually cause pain

away from the site, all over the body, nor affect the whole body so that the slightest touch, the gentlest feeling of the pulse at the wrist, causes the severest pain. Should it not rather be considered as a masquerade of fatty degeneration, like angina pectoris and tic douloureaux? Surely fatty degeneration was the most constant and prominent element in this case. The patient never fully followed out the treatment for fatty ills; would not live on broiled chopped beef alone; refused nutritive enemata. He refused to eat because of the agony of swallowing and increase of saliva. He complained of choking while eating, but never choked nor regurgitated food through the nose or mouth, as is usually the case in stenosis of the throat. His mind was very much on the alert; he noticed all that was going on, as conversation, deeds, questions of domestic ethics, etc. He got but little sleep without medicine — quarter-grain doses of codeia sufficed, and lactucarium served for a time. Towards the last the abnormal lymphatic and salivary secretions ceased to flow. Refusing to eat he died of starvation. Could he have fed like other cases he ought to have got better.

At one time my mind was made up to cut through the diseased gland for diagnosis and local stimulation, but was deterred by the opinion he held that it would increase the disease to extirpate it. Had either been done I think it would have proved good for both patient and operator. However, so long as the patient would not come down to strict business in the alimentation needful to replace fattily degenerated tissues there is no doubt that the fatty ill would have progressed to a deferred death.

This idea of some neuralgias and hyperæsthesias being due to fatty ills opens a new door to efforts for relief of pain by means of food mainly.

ASTHENOPIA.*

BY DUDLEY S. REYNOLDS, A.M., M.D.

Asthenopia should be classified, in my judgment, somewhat differently from what has been the common custom by our text-book writers. I think clinical experience will demonstrate that *visus hebetudo* of the old writers must be strictly limited, according to cause, to the neurasthenic, the muscular, and the accommodative types.

Doctor George M. Gould* gives a reproduction of Marlowe's table of 2000 eyes, in which there were: hyperopic astigmatism, 308; compound hyperopic astigmatism, 891; simple myopic astigmatism, 156; compound myopic astigmatism, 252; and mixed astigmatism, 122. In a report on Astigmatism to the Western Ophthalmological, Otological, Laryngological, and Rhinological Association at St. Louis,† I presented an analysis of 4686 cases, 555 of whom had sight in one eye only, embracing a consideration of 8817 eyes, in which 2816 were astigmatic; whilst of the 2000 eyes observed by Doctor Marlowe 1729 are reported astigmatic. These figures are quite interesting inasmuch as they bear out the general rule that personal observation is as different as are individuals.

In Marlowe's table of 2000 eyes the number of persons is not considered. In my own report there were 4686 persons, in 3282 of whom the errors of refraction were spherical, whilst in 1408 astigmatism was found. Of this number of cases of astigmatism, 555 were astigmatic in one eye only. It is interesting to note that Marlowe's report embraces 122 eyes with mixed astigmatism, whilst in my own list there were 145 eyes, in 91 persons, with mixed astigmatism. In my report of 4686 cases there were 6564 eyes with spherical errors of refraction, while Marlowe reports but 248 spherical errors out of 2000 eyes. My table is made up entirely from private practise, and represents cases as they were presented for examination without any choice. I suppose the discrepancy between my figures and Marlowe's grows out of the fact that neither of us had a sufficient number of cases from which to draw reliable conclusions, and that continued observation may serve to alter somewhat the relative proportions of the several forms of defects of refraction. This may seem unimportant to the casual observer, but when it is known that astigmatism is the form of refraction attended by the complicated,

*Read before the Kentucky State Medical Society.

*American Year Book, 1896, page 759.

†April 8th, 1897.

and therefore the most difficult, forms of asthenopia with which the practitioner is confronted, and that the mixed type of astigmatism is least understood, the purpose of comparing the figures becomes more clearly apparent.

Of the accommodative forms of asthenopia but little notice may be taken, as they are readily relieved by correcting the error of refraction upon which they depend.

The muscular types of asthenopia present more difficulties because they often depend upon constitutional conditions entirely independent of the state of refraction in the eyes, and are frequently found in persons in whose eyes there is no error of refraction. That form which has often been designated as retinal asthenopia belongs really to the domain of neurology. It is most often found in girls accustomed to wear veils, and in persons whose eyes have for long periods of time been subjected to glaring lights, or multiple sources of illumination of objects—conditions which bring about hyperæsthesia of the retina. It often happens that persons whose occupation requires constant use of the eyes, becoming constipated, or suffering from miasmatic infection, or given to the habit of holding objects too close to the face, suffer asthenopic symptoms. All forms of asthenopia are attended by more or less headache, beginning sometimes in the eyes, sometimes in the temples, sometimes in the forehead, and quite frequently at the point of connection between the sagittal and lambdoidal sutures. If the headache reaches the occipital region it is almost a certain sign of neurasthenia or astigmatic asthenopia.

Disturbances of the central nervous system in high grades of hypermetropia and in all forms of astigmatism, especially where the error is greater in one eye than in the other, acute mania, melancholia, and sometimes epileptiform convulsions, are observed. Indeed, asthenopia is one of the common complaints of young people; it is often observed in the middle aged, and occasionally in advanced life.

The late Doctor Stanhope P. Breckinridge was nearly forty years old before he discovered that his asthenopia, attended by severe sick-headache, was due to an unequal degree of hypermetropia in the two eyes; in fact, he had supposed himself practically blind in the left eye; but a careful examination disclosed the presence of hypermetropia—6.00 D. in the left eye, whilst the error of refraction in the right amounted to but 0.75 D.

Professor John Gamgee, of Chelsea, England, who had supposed himself to be so nearly blind in the right eye that it was of no use to him in reading, at the age of forty-two years, after a careful examination was found to have 4.50 D. of hypermetropia in the right eye, and 1.00 D. in the left. He had been subject to attacks of sick-headache, was at times melancholy, and had always been considered quite eccentric; after the correction of his error of refraction he experienced entire relief from these asthenopic disturbances, and a corresponding change in disposition. My examination of his eyes was made on the 13th of May, 1880, and in June, 1885, he wrote me that he had not experienced a headache since he began the use of the glasses. He was a man in robust physical health, an enthusiastic student, employing his eyes almost constantly from the time his refraction was first corrected until the date of his letter in June, 1885. All the asthenopic symptoms from which he had suffered since childhood were relieved by the glasses alone.

On the 15th of March, 1883, a lady forty-six years of age, in good health apparently, but who had recently developed such striking symptoms of mania that she had been adjudged insane by the Circuit Court of Marion County, at the request of the family physician was brought to me for ophthalmoscopic examination. The patient's pupils were narrowly contracted, and to facilitate the examination I instilled a drop of homatropine solution into each eye. She was suspicious and difficult to manage. Ophthalmoscopic examination revealed nothing important. Examination of the patient's refraction disclosed the fact that she had 2.25 D. of hypermetropia. This error being corrected with glasses the patient became more quiet, and in the evening became rational for the first time in several days. That night she took a bowl of chicken soup, and slept nearly all night. On the 17th of March she returned to the office so changed in appearance that neither my clerk nor myself recog-

nized her when she entered. She has been rational ever since that time, or at least until about four years ago, which was the last I heard of her.

Other forms of asthenopia far more difficult to elucidate are the muscular types, and it is this type especially which it seems to me is most urgently in need of further elucidation.

In 1887 D. Appleton & Co. published a work entitled "Functional Nervous Diseases," etc., by George T. Stevens, M.D., of New York, being the prize essay of the Royal Academy of Medicine of Belgium for 1883, slightly modified, revised, and translated into English by the author. This work is devoted almost entirely to the discussion of the various forms of headache, so-called neuralgia, spinal irritation and neurasthenia, chorea, epilepsy, and various mental disturbances brought about by errors of refraction, or disturbances in the harmony of the ocular muscles. This, of course, embraces every variety of squint, and the most remarkable feature of the work is found in the treatment proposed for the varying forms of heterophoria. At page 135, the author says he had performed 315 operations for the relief of insufficiency of the external recti which were so slight as to be excluded from the classification of the cases of squint. His method of operating was to "bring the tendon forward by means of a hook, as in the operation for strabismus, when the central fibers are divided at the sclera, allowing the borders of the tendon and the attachments of the capsule to remain uncut. . . . The division through the conjunctiva is made exactly over the insertion of the tendon and about one-fourth of an inch in extent." Putting the tendon upon a stretch by raising with a hook, he divided "carefully each way from the center by several little cuts. The capsular connection at the borders of the tendon must in all cases be preserved. By dividing all but the extreme fibers at the borders the tendon lengthens slightly, while the division of the external fibers leaving a central band, as has been proposed by some, results in very little if any extension of the tendon."

Now the remarkable feature of this work is that it has given rise to widespread controversy in consequence of the varying and generally unsatisfactory results of the operation. Partial tenotomy has been tried and abandoned by hundreds of the best men in the profession; yet Stevens continues to practise it, and is just as warm in advocating his partial tenotomies as he appeared to be in his prize essay.

I have noted in a large number of persons the effects of constitutional treatment, the exercise of weak muscles by prisms, and prolonged periods of rest of the eyes, with systematic feeding of the patient, in comparison with those cases whom I subjected to tenotomy. I am now thoroughly persuaded that the field for partial tenotomy of the recti muscles is so decidedly restricted that I shall rarely, if ever, resort to it again. Instead of partial tenotomy, I find as a matter of experience that the muscle the central part of whose tendon has been divided acquires rather increased strength from the irritability of its fibers set up in the period of reattachment; that the contraction of the cicatrix brings the cut ends of the tendon back to the original point of insertion; and that nothing less than the complete division of the tendinous attachment of the rectus muscle can give to it a point of reattachment posterior to the line of original insertion.

I have found in a limited number of cases of muscular asthenopia which could not be relieved by strychnine, by special exercise, or special diet, that the removal of an elliptical portion of Bonnot's capsule over the insertion of the tendon of the weak muscle, and uniting the opposite walls of the capsule with silk sutures, serves the purpose of permanently shortening the capsule, or at least maintaining the state so long as to permit the feeble muscle to regain its tonicity. The method of procedure is to take a mouse-toothed forceps and grasp the ocular conjunctiva between the cornea and the line of insertion of the tendon of the weak muscle, and with the point of Graefe's cataract knife carefully divide all the structures external to the sclera directly over the tendinous insertion; then raise the flap and carefully divide the connective tissues of the capsule back to about two, three, or four millimeters, according to the width of the portion to be removed, and with the scissors the upper section is com-

pleted, removing the elliptical piece. The sutures must be carefully introduced, and both eyes should be closed with a little cotton-wool over the closed lids, and some strips of adhesive plaster drawn from the cheek to the brow. The dressing should not be removed for three or four days unless the patient has pain.

Louisville, Kentucky.

CONCERNING GLAUCOMA.

BY J. H. THOMPSON, M.D.

It is remarkable, although for the last fifty years the best investigators in the medical world have examined this subject, to-day little or nothing is known about the cause of glaucoma. So far as the symptoms of the disease—the glaucomatous condition—are concerned we are well informed, but of the cause of the increase in the intra-ocular tension the profession is as ignorant to-day as when McKenzie edited his first edition on the Diseases of the Eye. For this reason glaucoma is not a favored subject for a short essay; and whatever theory may be advanced will probably fail, judging from the experiences of the past. Paradoxical as it may appear, over a disease the cause of which nothing is known we are comparatively the masters.

It is not my purpose to here review the theories of glaucoma,—that alone would be a Herculean task; nor shall I consider the supposed advance in knowledge concerning the disease; I shall simply mention some interesting points and refer to what I have learned from individual experience.

Simple glaucoma—the amaurosis with excavation of the optic nerve of Von Graeffe—and inflammatory glaucoma are two separate and distinct diseases, probably dependent upon dissimilar causes. I have never known an acute inflammation to attack a simple glaucomatous eye—that is, an inflammation of a glaucomatous character. Secondary glaucoma and simple glaucoma are closely related, for no man would associate the former with acute inflammatory glaucoma. Regarding secondary glaucoma it is known that mechanical irritation of the ciliary process is the exciting cause, yet I am not aware that any one has seen the disease follow simple wounds of the ciliary region, however extensive or dangerous they may be, provided the cicatrix does not cause a dragging on the anterior uveal tract. One most commonly sees it in eyes suffering from corneal staphyloma with adherent synechia, and in dislocation of the lens. Elevation of the tension following traumatic cataract is not secondary glaucoma, and under this heading complete occlusion of the pupil from iritis cannot be considered. If one studies the symptoms of simple glaucoma and at the same time considers the near relationship it has to the secondary form, it is evident that the cause must be somewhere about the ciliary zone, which provokes either an increased exudation of fluids or hinders the normal drainage of the aqueous.

Mautner's theory of chronic inflammation of the optic nerve and tissues surrounding it is not tenable. To Kneis we are indebted for the theory of the occlusion of Fontana's space, caused by an encroachment of the base of the iris on the posterior edge of the cornea, which is itself caused by pressure from behind from an abnormally large or swollen ciliary body,—for which reason the authorities seek to prove that glaucoma most frequently attacks hyperopic eyes; this theory is so ingenious and explains so well a mechanical cause that the majority of the ophthalmic surgeons headed by DeWecker hold it an accepted fact. Unfortunately, however, this is not always true, for many glaucomatous eyes have a free and normal anterior chamber; although it is true that hyperopia does predispose to glaucoma, the disease is also found in myopic individuals. Only recently I made a successful iridectomy for acute inflammatory glaucoma in an eye two dioptrics myopic.

The next theory which depends upon disturbance of the circulatory apparatus I believe best explains the increased tension. I have been very much impressed with the idea that free drainage of fluid from the anterior chamber by way of the pectineal spaces is much exaggerated, for we have no evidence that the circulation of the fluid is at all active; on the contrary it may be proved that it is very sluggish. It is yet sufficiently active, however, to serve the purpose of regulating tension in healthy eyes; but in the aged, when the elasticity of the sclera is low,

the fluid accommodation can be disturbed by apparently trivial causes. Glands in the true sense of the word have not been found to exist in the eye, still one can readily understand in an anatomical sense the whole anterior uveal tract may be considered a simple gland supplied by the long posterior and short anterior ciliary artery; through an extraordinary capillary network the circulation of this gland empties through the choroidal vessels and passes out by way of the vena vorticosa. Now, anything interfering with this venous circulation must necessarily elevate the tension. But it is not necessary that the entire choroidal circulation be affected to bring about that result. It seems to me that obstruction of a comparatively small area could embarrass the eye. For example, what caused glaucoma in the following: A lady fifty-five years old had been affected with complete dislocation of the lenses from childhood; she wore cataract glasses and had never suffered from her eyes. Some weeks before I attended her the right eye pained at times; the attacks, at first paroxysmal, became continued. When I saw her the eye was blind, glaucomatous, and I removed it. Now is it presumptive that glaucoma in this case was the result of irritation or compression? I think the latter, but since I cannot prove it I must say as my predecessors have done, "I do not know."

A very common accompaniment to glaucoma is partial atrophy of the iris, which will be observed when the pupil is contracted by a myotic; it will appear oval or slightly irregular. Some think that this irregular contraction is dependent upon simple paralysis from inflammation or pressure, but it is more probable that it is a true atrophy and is the local manifestation of a condition generally diffused throughout the uvea. It is a very suggestive fact that in making an iridectomy for glaucoma it is useless to cut away that part of the iris which is atrophied; it is essential that the normal tissue be excised. Von Alt recommends to contract the pupil with eserin or pilocarpine to see which zone of the iris is most active; then make the iridectomy there, for it has been repeatedly observed that although the tension may be for the time being lowered, yet a faulty iridectomy will give no assurance of complete relief.

There can be no doubt that the mydriasis of glaucoma is a pressure system, and dependent upon paralysis of the sphincter fibers. This is true for simple or inflammatory glaucoma, but we must not forget that in absolute glaucoma the mydriasis is atrophic. Now this atrophy of the iris is not always complete, so if in a painful, blind eye it is possible to contract any one part of the iris there is hope that an iridectomy may spare an enucleation.

The most frequent cause of an attack of glaucoma is an active mydriasis, and it makes no difference what the cause of the dilatation may be. Anything which can directly or indirectly cause it may excite an acute attack, but never in an eye which is not in a glaucomatous condition. For this reason I believe the idea of atropine mydriasis being dangerous in old people is false. I have heard of such accidents, but never saw it; so for many years I have not hesitated to give atropine in old people after I have tested the tension and in doubtful cases measured the visual field. It also has been taught that the usual cause of glaucoma is fright, anxiety, anger, pain, especially acute indigestion, etc. If it is true that active mydriasis can excite an outbreak we can readily understand why the above causes are active—they all produce dilatation of the pupil and in that way upset the intra-ocular tension. But why does not darkness act the same way? From photographs of the eye made by the flash-light the pupils are seen enormously dilated; yet here is a mydriasis which is not charged with exciting glaucoma, but it may explain why acute inflammatory glaucoma generally attacks the eye at night.

I believe that there is but one treatment for glaucoma, viz., *iridectomy*, no matter whether the disease be acute, chronic, or subacute; anything else is palliative and useless. Sclerotomy, divulsion, or the nasal branch of the fifth have had their day, and all have about come to the conclusion that when an iridectomy cannot save the eye is doomed. In making an iridectomy for glaucoma it seems that all that is necessary to do is to remove a piece of the *healthy* iris, and although this is one of the most difficult operations in surgery it is a fact that a bungling *technique* is not fatal to vision, provided

the lens is not injured and the stump of the iris is not caught in the corneal wound. I have made a great many operations of iridectomy and have yet to be satisfied with the appearance of any I have made for acute glaucoma. They have been with few exceptions ragged affairs, but wonderful to be said, successful. I recollect very well the first operation I made for acute glaucoma. Here I made my first great mistake by operating under cocaine anæsthesia, or at least supposed anæsthesia; of course I made a mess of it, but I cured the woman. The appearance of the coloboma was dreadful—small, ragged, and untrue. No man ever saw that particular iris in that condition, for shortly afterwards I made a cosmetic operation and trimmed off the tags so that the eye appeared reasonably respectable. She had no return. My experience is that it is not necessary to make a large coloboma. The usefulness of myotics to aid the operation for glaucoma cannot be denied. However hard an eye may be eserin will for the time being reduce the tension and relieve the distressing pain. Myotics not only contract the pupil but deepen the anterior chamber, so that it is possible without danger to make the correct puncture with the keratome. Let me remark from experience: The Graeffe knife has no advantage over the keratome in any particular. In snipping off the iris it is generally supposed that that tissue is to be removed even to its base, so that some operators pull the iris far out to that end. This is another mistake, one which has ruined many eyes. Under no circumstances should the iris be torn from its attachment. It must be cut off without dragging; but the closer it is cut away from its base the better. Now the section of the iris will be deep in proporto the nearness of the corneal incision to the base of attachment, and since such an incision cannot be made into a shallow anterior chamber the advantages of a myotic are evident.

My experience is that these iridectomies are always accompanied by hæmorrhage, which in itself has no detrimental influence on the healing process; the blood being absorbed in a few hours, unless the case is a malignant one, when of course a happy result is not to be expected.

Although the blood may be absorbed yet many eyes are ultimately damaged by it. Several times I have been annoyed by finding, after the eyes have recovered, the anterior capsule of the lens dotted over with pigment deposits which have settled down from the blood-clot. I have used the prone position for this, and would suggest in the future to elevate the head as soon as convenient after the anæsthetic is worn off, so if pigment be thrown down it will settle to the bottom of the anterior chamber where it can do no harm.

Kansas City, Mo.

Correspondence.

SIMPLE CONTINUED FEVERS NOT TYPHOID OR MALARIAL.

Editor MEDICAL AGE:

In studying fever the efforts of the medical man are constantly directed toward endeavoring to determine the exact location of the inflammatory lesion and the exciting cause thereof, in order that an intelligent and accurately directed form of treatment may be evolved. There is still a class of cases in which such efforts have thus far been ill directed, or at least unsuccessful. Recently writing upon this subject Doctor J. M. Da Costa remarked:

> It is a mere matter of surmise what, in any of the varieties of the prolonged simple continued fever, causes the fever. That it is due to a disturbance of the heat centers seems certain. But what gives rise to this disturbance? Is it one cause or are there several? Leaving out the hysterical cases and those of nervous origin it appears to me likely that the fever originates from causes within the body; that either as the result of fatigue or overwork, or from impure water, or some preceding digestive disturbance, leucomaines form from vitiated secretions, of a character to disturb the heart centers. Whether in the continued fever of the tropics heat acts also in this way, or more directly, or through blood changes produced, is a matter on which we can with our present knowledge only speculate.
>
> Both here and in all these prolonged continued fevers there is a great field for chemical research, especially in the leucomaines of the uric acid group. The treatment of the prolonged simple fevers is purely symptomatic. Quinine has no effect on them, nor have the ordinary antipyretics more than a temporary influence. Phenacetin and salol do most good, particularly in cases with headache, and they are best given in small doses, a grain or two, frequently repeated, until their effect is manifest. Better still when it can be efficiently carried out is the warm bath treatment, not only to lower temperature but for its revulsive and

alterative influence. Purgatives, unless contra-indicated by weakness, always form part of judicious treatment.

I have been very successful, and apparently obtained the best results from the following: First cleanse the bowels daily by a mild saline cathartic, given before breakfast with a copious draught of water, using each day a different saline, viz., phosphate of sodium, sulphate of sodium, sulphate of magnesium, Rochelle salt, Crab Orchard salt, Seidlitz powders, etc. This insures a minimum of absorption and the least possible auto-toxemia. In severe cases this method of catharsis should be employed frequently.

The temperature may now be well controlled by vegetable antipyretics, such as aconite or veratrum, combined perhaps with nux vomica for its effect upon both heart and nervous system; these remedies are sometimes much more efficient when represented by their alkaloids. Acetanilid may often be used with great service, as it is not only an antipyretic, but antiseptic. The importance of the bath treatment as mentioned cannot be too strongly emphasized.

R. J. MEERE.

New Sharon, Maine.

BACTERIOPHOBIA UP TO DATE.

In these days of microbes and contagion from all things, a new set of sanitary regulations for general guidance ought to be jumbled up into the form of an Act and shoveled before the Viceroy's Council in order that it may become law. A few suggestions like the following might help the Deputy Legal Remembrancer:

Every hotel, hostel, bar or restaurant keeper must set apart a special knife, fork, spoon, plate, glass and table for each customer, and the customer's name must be inscribed:

No two persons must be supplied with milk from the same cow:

No two men may kiss the same girl:

Small boys must not wear jackets that their elder brothers have grown out of:

It is a criminal offense to cut down parental pants to fit the offspring:

No person under penalty of 5000 rupees shall put his arm around the waist of another person, even for the purpose of dancing, without having first caused the anti-microbe spray to be used for several hours in the vicinity of such person:

No person shall sit on another person's lap on pain of death:

Anybody playing at Smith and Clegg will be shot.—*Indian Planters' Gazette.*

THE MEDICAL AGE.

A SEMI-MONTHLY REVIEW OF MEDICINE.

—PUBLISHED BY—

GEO. S. DAVIS, Medical Publisher, Box 470.

All communications regarding papers, reports, etc., should be addressed to the Editor of the MEDICAL AGE, P. O. Box 470, Detroit, Mich.

Matters relating to advertising space, etc., to be addressed to the publisher, Geo. S. Davis, Box 470, Detroit, Mich.

The editor cannot engage to return rejected manuscripts or to correspond with the writers thereof, unless such are accompanied by sufficient postage.

DETROIT, MICH., JUNE 25th, 1897.

Editorial.

EPIDEMICS OF CRIME.

The *Cincinnati Lancet-Clinic* declares "At this time there is passing over the country a wave of criminal propensity," and then refers to certain cases of lynching for rape that recently occurred in Ohio, as well as murders generally, suicides, etc.

The editor seeks to explain the causes of criminal epidemics by race jealousies, commercial depression, political corruption, etc., but it seems to us he fails to touch the most potent factor of all, viz., a degraded, lawless, and sensational public press. Crime epidemics are most certainly fostered by publication of the details of criminal acts, and the more lewd, *outré* and downright filthy the latter can be made, the greater is their hold and influence upon the public.

Thirty years ago no one would have dared to hint that such a lawless act as lynching could take place in either Ohio or Michigan, and yet these have of late years become, alas! too common. There was a time not many years agone when Texas was held to be the great State of crime and outlawry, and yet today more criminality is recorded in either of the two Northern States just mentioned than throughout the vast expanse of the latter, simply because the opportunity for reading pernicious papers is greater. The evening "penny dreadful" and the Sunday "stabber" are institutions of comparatively modern growth and owe their success chiefly to their ingenuity in catering to depraved taste. Today, throughout a large proportion of the United States, people may be wilfully slandered, slurred and blackmailed by cheap papers for no other cause than personal spite

or refusal to take the reporter into their private confidences in order that he may make market of the same.

Only a few days since in a western city a quiet, kindly, unassuming gentleman was most unmercifully slandered, or "roasted" as the reporter put it, on the occasion of his daughter's wedding; the groom moreover was treated to the same shameful contumely; and all because the parties abused preferred to keep family matters to themselves. What is the lesson inculcated thereby in the minds of youth? Merely that there is no such thing as personal right or individual privilege in any form or condition of life. Truly this constitutes the alphabet of anarchy.

When matters have come to such a pass that one's private affairs are to be sedulously unearthed and derisively held up to public view, it is certainly high time measures were taken to establish a press censorship. There is no other recourse, inasmuch as the sensational sheet can indulge in blackmailing as freely as possible, and an appeal to the law will only exemplify the old aphorism of "suing a beggar and catching a louse," along with a repetition of the same published insults and indignities in a much more exaggerated and aggravated form.

It is well known that a novel or peculiar form of *felo de se*, if chronicled in detail, always insures a crop of suicides of the same precise nature; and an especially atrocious and filthy case of rape by being published secures many like attempts or imitations. Even the ordinary lynching becomes more and more horrible each year as a result of the lessons taught through the newspapers.

The great trouble is that the secular press does not take itself seriously—but its readers do. Surely if crime must be chronicled there is no need for details, and the barren facts should be placed before the public in the fewest words and in the most quiet and unostentatious way.

Again, the conduct of sensational trials should be made more private than at present; neither the majesty of the law nor the freedom of the press requires that the general public shall be permitted to pack the court-room, or that the proceedings shall be published in the daily papers. It is a notorious fact that a large majority of the latter—we are glad to know of *some* exceptions—are unfit to be taken into any respectable household. No measures taken for individual exclusion can be made perfectly available, inasmuch as these sheets are purchased upon the street, to be read upon steamers, ferries, railway trains, street-cars, etc., and then thrown down to be picked up by any chance comer.

It is an old saying that "like begets like," and it must be equally patent, even to the most shallow mind, that the teaching of crime as afforded by the public press must necessarily breed a crop of criminals. For as Pope most aptly says:

> Vice is a monster of so frightful mien,
> That, to be hated, needs but to be seen;
> Yet seen too oft, familiar with her face,
> We first endure, then pity, then embrace.

STILL ANOTHER ONE!

The multiplication of diploma mills is one of the best possible evidences that the regulation of the practise of medicine should be under control of the Central Government rather than that of individual States. Only recently two institutions of this kind claiming Chicago as a home were summarily squelched, though one was conceived and born in Milwaukee.

We are now in receipt of a communication and prospectus from the capital of a contiguous State which announces the Central University is prepared to give "a Correspondence Course of Instruction upon any branch desired." The letter is as follows:

> Office of
> Central University.
>
> DEAR DOCTOR—We would like a one- or two-inch space in your journal for Central University if we can arrange to exchange with you, giving you a scholarship for a correspondence course of instruction leading to some literary degree as explained in enclosed circular.
>
> This scholarship will be transferable and good at any time presented.
>
> If you are interested in our work and would like to exchange small space in your journal for a scholarship we would be pleased to hear from you.
>
> I am, very truly yours,
>
> ———————.

Lest there should be any doubt of the purpose and intent of this wonderful University, the prospectus specifically declares it is a

"legally organized and chartered institution" and that:

The faculty consists of *some** forty instructors, among whom are Physicians of all schools of practise, Clergymen of the various denominations, Masters of Science, Doctors of Philosophy, Doctors of Laws, Doctors of Divinity, etc. The work is divided into various departments, such as Law, Medicine, Theology, Electricity, Science, etc. A course of instruction leading to any of the following *Degrees* may be taken: Bachelor of Science (B.S.), Bachelor of Arts (A.B.), Bachelor of Philosophy (Ph B.), Bachelor of Didactics (B.D.), Master of Arts (M.A. or A.M.), Master of Electro-Therapeutics (M.E.), Master of Science (M.S.), Doctor of Laws (D.C.L.), Doctor of Philosophy (Ph.D.), Doctor of Divinity (D.D.).

In addition to the above, instruction will be given in a preparatory Medical or Dental course, Hygiene, Baths, Electricity, Mechanical treatments, *and in short upon any desired line of study.** In all cases the appropriate Diploma will be granted, etc. . . . The length of time required to complete a course . . . depends upon the knowledge possessed at the time of commencing the course. . . . As soon as the Faculty, Board of Censors and Officers of the University feel satisfied that the applicant has the requisite knowledge, requirements, and character, a Diploma and Degree will be granted. . . . No particular length of time is necessary to complete a course of study. We give full credit for all present knowledge, and an applicant may complete a course of study as soon as he can show the necessary qualifications and pass the required examinations. Ladies admitted upon equal terms with gentlemen. HONORARY DEGREES may be conferred upon Physicians, Clergymen, School Instructors and others who by virtue of their experience, superior qualifications and attainments are entitled to especial recognition and honor. A course of instruction may be commenced at any time. . . . Terms will be liberal. Prices of tuition on application. School Teachers, College Students, Physicians, Ministers, Electricians, and all others desiring a more complete and thorough knowledge of their profession should avail themselves of this opportunity to become proficient by taking a *Course of Instruction at home* in Central University, at a very small expense.

This elegant "university," which is to re-educate the whole world at a comparatively small cost, and incidentally recoup the pockets of its projectors, modestly gives information of but a single member of the faculty, viz., its "President." It would seem as if on the strength of similarity of names this official (sic!) had singled out the editor of THE MEDICAL AGE as a possible disseminator of his dishonesty.

We trust if there is any law in Indiana the Central University will obtain the full benefit of the same at the earliest possible moment.

The multiplication of these diploma mills affords the best possible evidence that the regulation of medical practise and of medical teaching should be vested in the Central Government alone.

*Italics ours.

THE MISSION OF THE MICROBE.

"The history of science shows that a fact soon formulates itself into the dignity of a discovery, which in turn yields the palm to an explanation with the usual interdependencies of cause and effect. How easily at one time was said, 'Eliminate the microbe, cure the disease;' how readily was the boon clutched after until Roux and Yersin proved the presence of the diphtheria bacillus in normal throats, and Metschnikoff found the cholera bacillus widely spread in water. Then, perhaps, it began to dawn upon the intellect that Pythagoras once rushed naked from the bath to proclaim to the multitude an "eureka," which in his exhilaration he doubtless exalted into a panacea. Afterwards the world discovered that he had promulgated a mode without establishing a principle. Now a virulent condition is made to do duty for an aggressive rod, and health boards have begun to lose faith in their transferred cultures. Next, antitoxic methods are in vogue, to give way in turn to other theories —for such are these attempts to solve the biologic mystery still to be termed. Of course it were easy to offer the consolation to balked hopes that after the manner of certain transcendental philosophers 'spirits may be bad as well as good—probabilities are to determine.' Verily the equilibrium is hardly to be maintained when a dual life is concerned, the more especially when there is brought into the controversy the experiments of the Hygienic Institute of the Berlin University, which seem to convince that animals may live without depending at all upon the gratitude of parasites. 'We might spend months in speaking of the beneficent ways of the products,' says Doctor E. A. de Schweinitz,

in a recent presidential address before the Chemical Society of Washington, 'but these germs are only waiting man's bidding to become valuable subjects and to show that, as has been instanced in the history of nations, conquered people often make the best and wisest citizens.' After all, what is really proven is that complex man has only a wider and busier field for his own particular warfare."—*The Sanitary Record.*

THE GERM THEORY ATTACKED.

At the recent meeting of the American Medical Association in Philadelphia a paper was read by Doctor Elmer T. Lee, of Chicago, entitled "The Physiological Treatment of Diphtheria." The truth of germ theory, which has revolutionized modern medicine, was therein attacked, and remarkably by a gentleman who has obtained foremost recognition as a pathologist. He contended that:

> The germ is the lowest form of organism. It has no creative power; it cannot produce anything. It is a mere cell and lives by absorption. At certain times the germ multiplies by splitting, each part in turn dividing into other parts, and so on until the material on which they exist is exhausted; it is not reasonable to maintain that an organism of this kind can originate anything.

We await with interest the storm of dissent that is sure to accrue when the paper appears in print.

Doctor Lee, by the way, has concluded to take up his abode in New York as affording greater scope for his professional attainments.

EDITORIAL NOTES.

The American Medical Association.—

This organization celebrated its fiftieth anniversary in Philadelphia a fortnight since. The meeting was notable in many ways: Unusually large attendance; more general harmony and enthusiasm; and likewise a promise of complete rejuvenation — all of which is most pleasing to the medical profession at large, and the hope is being generally expressed that the success attained will bring very largely increased membership.

The American Medical Association had its inception in the State Medical Society of New York, chiefly through the efforts of N. S. Davis—now of Chicago, but then of Binghamton—and James McNaughton and Peter Van Buren of Albany; of these Doctor Davis alone survives.

The first meeting, at which were present about one hundred delegates representing medical societies and institutions of sixteen of the twenty-six States then in the Union, assembled May 5th, 1846, in the hall of the Medical Department of the New York University, and effected an organization with the following officers: President, Doctor Jonathan Knight of New Haven; Vice-Presidents, Doctor John Bell of Philadelphia, and Doctor Edward Delafield of New York; Secretaries, Doctor Richard D. Arnold of Savannah, and Doctor Alfred Stillé of Philadelphia. The second convention was held in Philadelphia fifty years ago with about two hundred and fifty delegates.

New Germicidal Soap.—

An ideally powerful germicidal soap is something that has been a *sine qua non* to surgery. Recently Doctor Charles T. McClintock, of the University of Michigan, succeeded in preparing a soap in a one-per-cent. solution of which cholera, typhoid, diphtheria, and pus germs, as well as anthrax spores, cannot survive even one minute. The great objection to the ordinary mercurial antiseptics is that they coagulate albumen and attack metal instruments. This so p, however, it is claimed does nothing of the kind, although it has some action on silver and aluminum. Another advantage claimed is that it can be employed both as a lubricant and sterilizing agent.

From the evidence adduced there seems little doubt that an ideal germicidal soap has been discovered, and it is to be presumed it will speedily be marketed.

Black Sea Uninhabitable to Deep-sea Fish.—

> It has long been known that deep-sea fish were unable to live in the waters of the Black Sea, but the cause was not discovered till recently. The latest explanation is to the effect that the material rendering the water uninhabitable is sulphuretted hydrogen, which is liberated in large quantities by bacteria (*bacillus hydrosulphuricus ponticus*) that have their habitat in the slime of the bottom of the sea.

The foregoing we clip from an exchange, and it is hardly necessary to add it is sheer

rubbish. The Black Sea is prolific in fish, and like the Caspian dredging and study of deep waters has revealed many forms of life, some not known to exist elsewhere. Even were this not true the bacillary theory as above outlined would be absurd.

Euformol.—

The euthymol of Messrs. Parke, Davis & Co. has been widely used by the medical profession, and its value as an antiseptic both for external and internal use thoroughly tested. Believing, however, that there are cases in which a more powerful germicide is required, this firm has introduced Euformol, which combines the valuable properties of euthymol with the germicidal power of formaldehyde. The new preparation is non-toxic, non-irritant, does not stain, and is particularly efficient as a deodorant—owing to the latter property it is highly recommended in bromidrosis. It is also fatal to fleas, lice, and like parasites.

What Next!—

The latest association formed, according to *Nature*, is for the "Harmonious Development of Faculties," an object which certainly is deserving of sympathy.

We may expect soon to hear of The Amalgamated Societies for the Promotion of Idiocy.

The "Association" business is being very much overdone these days, apparently.

Thyreoids in Uterine Fibroids.—

Jouin declares the internal administration causes a marked reduction in size of fibroids, while pain, pressure, general weakness and especially hæmorrhage are certainly relieved; also that this treatment causes a diminution of menorrhagia in women at the climacteric.

Poisoning by Antitoxin.—

Rosenberg, of New York, reports a severe case, although ultimately the patient recovered. He fails, however, to identify the make.

Enuresis.—

On the whole strychnine is the most valuable remedy, especially if coupled with regulation of diet and habits.

Items and News.

A Lesson in Thrift.—

It is said of Guy, the founder of Guy's Hospital, that his private parsimony equaled his public munificence. A good story illustrative of this is told of him in connection with John Hopkins, one of his contemporaries, who was nicknamed Vulture Hopkins because of his rapacious mode of acquiring his immense wealth. On one occasion he paid a visit to Guy, who, on Hopkins entering his room, lighted a farthing candle. Hopkins on being asked the reason of his visit said: "I have been told that you, sir, are better versed in the prudent and necessary art of saving than any man living, and I therefore wait on you for a lesson in frugality. I have always regarded myself as an adept in this matter, but I am told you excel me." "Oh," replied Guy, "if that is all you came to talk about, we can discuss this matter in the dark," and thereupon he blew out the candle. Struck with this example of economy, Hopkins acknowledged that he had met his superior in thrift.—*Medical Press ana Circular.*

The Length of Medical Qualifications.—

Some of the longest titles of medical qualifications hail from Ireland. For instance, the F.K.Q.C.P.I. (Fellow of King and Queen's College of Physicians, Ireland), or the still longer one of L.M.K.Q.C.P.I. (Licentiate of Midwifery of the same college). The Edinburgh qualifications—L.R.C.S.Ed., L.R.C.P.Ed., L.M.—are usually cut down to L.R C.S. and P.Ed., which is no longer than the letters appended to their names by members of the English Conjoint Board. So far as portentious and unwieldy titles are concerned, the adoption of a "one-postal system" by the medical profession would be an unquestionable advantage.

Immigrants of Old Degree.—

An exchange gives some curious information concerning Irish immigrants to the United States. There recently, it says, arrived from Southampton an immigrant named Leon Reynolds, a native of Wexford, who was ninety-seven years of age, his age forming a record for males in the books of the Immigration Bureau. His occupation is that of a saddler, and he expects to work at his trade in Illinois, where he has relatives living. But a still more advanced age than the above is recorded in the immigrant books, namely, that of an old woman named Annie O'Neil,

reputed to be at the time of her immigration one hundred and four years. She arrived in America about a year ago. The above facts are a wonderful testimony to the vitality and resolution of the old persons concerned.—*Medical Press and Circular.*

Twins from a Single Ovule.—

I was called to attend a lady, aged twenty-eight, in her third confinement, and delivered her of two children. I found two placentæ in close apposition, fused into a single mass, a separate cord to each almost joining at their insertion, the vessels of the one appearing to anastomose with those of the other. The whole placental mass was surrounded by one chorion, inclosing two distinct amnions. This was evidently a case of twins developed from a single ovule containing a double germ, a condition I believe to be somewhat rare, and conformed to the rule laid down by Schroeder, that in these cases the children are always of the same sex and generally males.—STEPHENSON.

An Opportunity to Win Fame.—

Now that pregnancy is known to be a germ disease, it seems strange that some investigator has not discovered an antitoxin which will immunize against conception for a longer or shorter time. I feel perfectly justified, from general observation, in asserting that such a discovery properly placed before the public would make the discoverer rich beyond all avarice.—MILLS, in *North American Journal of Homœopathy.*

The New Woman and the Wheel.—

A writer in a St. Louis contemporary says that the bicycle "is equally if not more beneficial to young girls with scanty, delayed or irregular menstruation, who are developing into manhood, than any other deviation from the normal that the female sex is afflicted with." The opponents of the wheel contend that this is just the trouble: that girl riders develop into manhood.—*Medical Record.*

Appendicitis.—

Apropos to the claims of abdominal surgeons it may be remarked that Pepper declares twenty to one are cured permanently without operation.

Is it True?—

It is stated that the right hand, which is more sensitive to the touch than the left, is less sensitive than the latter to the effect of heat or cold.

Book Reviews.

THE PRINCESS OF ALASKA. By Richard Henry Savage. Paper; 16mo; pp. 420. Price, 25 cents. Rand, McNally & Co., Chicago and New York.

This is No. 7 of the Oriental Library, and deals with the period just prior and subsequent to the purchase of Alaska by the United States. The scene extends across Siberia, into Kamchatka, to Sitka, and finally to Washington, and incidentally reveals the inside of the political machinations whereby the seal fishery became a mine of wealth to private parties, and whereby also certain valuable mines were obtained for a mere nothing. It is the old story of plotting, political chicanery, robbery, and murder, all in the struggle for undue wealth.

ANNOUNCEMENT. — W. B. Saunders, the well known Philadelphia publisher, announces during the coming season a number of new works, notably: an American Text-book of Genito-urinary and Skin Diseases; an American Text-book of Diseases of the Eye, Ear, Nose and Throat; Macdonald's Surgical Diagnosis and Treatment; Anders' Theory and Practice of Medicine; Senn's Genito-urinary Tuberculosis; Penrose's Gynæcology; Hirst's Obstetrics; Moore's Orthopedic Surgery; Heisler's Embryology; Mallory and Wright's Pathological Technique.

THE EARL'S ATONEMENT. By Bertha M. Clay. Paper; 16mo; pp. 384. Price, 25 cents. Rand, McNally & Co., Chicago and New York.

This is No. 255 of the Globe Library. The volume is by no means new, although this we believe is the first time it has been issued in popular form. It is an exemplification of the universal truth that every evil act sooner or later brings its own punishment.

TRAITEMENT DE L'OZENE RHINITE ATROPIQUE FÉTIDE. Par Docteur E. J. Moure. Paper; 8vo; pp. 64. Octav Doin, Paris.

This is a monograph which was presented to the French Society of Otology, Laryngology and Rhinology at its sessions during the present month in Paris.

BIRDS. Price, 15 cents; $1.50 per year. Nature Study Publishing Co., Chicago.

The April issue is No. 4 of Volume I of the most unique publication hitherto attempted. It is in fact an ornithological journal illustrated by *colored photography*, and we can only add that the portraits are such as to show that even if colored photography is not practical for anything else, it is simply perfect for the delineation of bird life. Such pictures of birds it has never been our lot to see—never such perfection in form, perfection in coloration, and perfection of surroundings such as trees,

bushes, nests, general landscape, etc. Even if one is not interested in ornithology the journal is worth ten times the subscription price merely for the portraits, any one of which is worthy of an elaborate frame and a place upon one's walls. Another notable feature is two histories given of each subject of illustration, one fitted for children, the other for adults.

The issue before us presents both male and female Rose-breasted Grosbeaks with nest and eggs, nine-tenths life-size; the Canada Jay in full size; Purple Gallinule, reduced; Smith's Painted Longspur, both male and female, life-size; American Red Crossbill, life-size; California Woodpecker, life-size; Pied-billed Grebe and young, reduced; Bohemian Wax-Wing, life-size; Long-billed Marsh Wren, male and female, life-size; the Arizona Green Jay, three-fifths life size.

No household possessed of children should be without this little magazine.

THE BADMINTON MAGAZINE. Price, 30 cents; $3.50 per year. Longmans, Green & Co., New York

In the June issue E. E. Somerville and Martin Ross write of "A Nineteenth-Century Miracle;" "Some Cricket Yarns" is by W. J. Ford; "Sailing in Small Yachts," by Maude Speed; "A Day's Duck-shooting in Kashmir," by Major W. R. Yeilding; "Moralizings on Golf," by E. Lyttleton; "Big Game in the Arctic Regions," by A. H. Markham; "Trout-fishing in the Bregenzerwald," by Mary Howarth; "Timur the Tartar," by G. H. Powell; "The Turf," by Alfred E. T Watson; "Two Days' Shooting in Austria," by G. R. A. F. Dunbar. There are the usual "Notes by 'Rapier.'" The articles are illustrated by F. S. Wilson, Lancelot Speed, Anthony De Bree, H. M. Brock, Lucien Davis, S. T. Dadd, and C. Whymper.

THE AMERICAN NATURALIST. Price, 35 cents; $4.00 per year. The Edwards & Docker Co., Philadelphia.

The June issue contains: "Toxodontia," by E. D. Cope; "On the Characters of Macropetalichthys," by C. R. Eastman; "The Golden-eye or Lace-wing Fly," by C. M. Weed; "Biological Studies in Massachusetts" (I), by G. C. Whipple; "Editor's Table"—Thoughts on Scientific Fads, by E. D. Cope; "Recent Literature;" "Recent Books and Pamphlets;" General Notes on Petrography, Geology and Paleontology, Botany, Zoology, Entomology, Psychology; Proceedings of Scientific Societies; Scientific News.

THE BRITISH GYNÆCOLOGICAL JOURNAL. Price, three shillings and sixpence. John Bale, Sons & Danielsson, Ltd., London.

The chief papers in the May issue of this quarterly Journal are: "Fibro-myomatous Uterus," by F. A. Purcell; "Ectopic Gestation with Tubal Rupture," by the same author; Discussion on "Doctor Beatson's Method of Treatment of Inoperable Carcinoma;" "The Development of the Present Status of Hysterectomy for Fibro-myomata and for Inflammation of the Uterine Appendages in America," by C. P. Noble. There are reports of the British Gynæcological Society, Original Communications, Translations, Reviews, Summary of Gynæcology including Obstetrics, New Books, etc.

REVIEW OF REVIEWS. Price, 25 cents; $2.50 per year. The Review of Reviews Co., New York.

The June issue contains a large number of papers. Mr. W. T. Stead writes of "The Queen's Empire;" Eliz. A. Allen of "Teachers' Pensions;" Frank Allport of "Defective Eyesight in Children;" Herbert Myrick of "The Question of Sugar;" H. W. Lanier of "The Season's Output of Fiction." In the departments are discussed "The Relief of Cuba, Greece, and Turkey," "The Senate Tariff Bill," "Canada's New Tariff," "The Gas Problem of New York," "The Civil Service Question," "Why Arbitration Failed," "The Queen's Jubilee," "Under the British in South Africa," "Greater New York," "Degeneracy of the Senate," "Progress of Medicine," etc., etc.

BULLETIN OF THE MICHIGAN ORNITHOLOGICAL CLUB. Price, 15 cents; 50 cents per year. Grand Rapids, Mich.

This is a quarterly published in the interests of ornithology in Michigan. In the April number before us Percy Selous writes of "Occasional Bird-Notes in and Around Greenville;" Chief Simon Pokagon writes "To the Michigan Ornithological Club;" "Notes on the Great Horned Owl" is by W. P. Melville; "Birds of Neebish Island," by Major A. H. Boies. There are Editorials, General Notes, Records of Meetings, List of New Members, and Migration Report for 1896.

DONAHOE'S MAGAZINE. Price, 25 cents; $2.00 per year. Donahoe Magazine Company, Boston.

The June issue has a "Newspaper Story" that is worth the reading. There are two symposiums in this number, one on the question whether the Dingley Bill will revive business, the other on municipal ownership of street railways, in which the old error about fares on Detroit's railway is again repeated. Donahoe's has just secured the services of Henry Austin Adams as editor-in-chief, and under his management it is intended to make this the best Catholic magazine in the country.

THE HYPNOTIC MAGAZINE. Price, 10 cents; $1.00 per year. Psychic Publishing Company, Chicago.

Contents for June: "Therapeutics of Hypnotism," by Thomas Bassett Keyes; "Report of Cases Treated at the Chicago School of Psychology," by Herbert A. Parkyn; "Report of Cases Treated at the Stevens Point School of Suggestive Therapeutics," by F. A. Walters; "Education During Sleep," by Sydney Flower; "Editorial Notes;" "Department of Electro-Therapeutics," by William Henry Bischoff; "Inquiry Department."

VICK'S MAGAZINE. Price, 50 cents per year. Vick Pulishing Co., Rochester, N. Y.

The principal papers in the June issue are: "A Talk About the Dandelion;" "Book Notes;" "Buds and Fruit;" "Clerodendron Balfouri;" "Exposition at Omaha;" "Family Cosy Corner;" "A Fine Three-acre Garden;" "June Jottings;" "Improvement in Lantanas;" "The Margins of Lawn Beds;" "Value of Mulch in Rose Culture;" "New Perennial Plants;" "Crimson Rambler Rose."

Therapeutic Brevities.

Use and Abuse of Ergot.—The reaction against the former abuse of ergot in obstetrics has apparently been now carried to an extreme and undue extent, and has led to its desuetude in many instances wherein this ecbolic might be most advantageously employed. I therefore submit some observations with regard to the circumstances under which long clinical experience has convinced me that ergot or its preparations may and should be given in midwifery practise, and the methods of its administration, together with a summary of the results to mother and child in one hundred and fifty of the instances in which in my practise this drug was thus resorted to.

Judging from the recent literature of this subject it may not be superfluous to premise that to use ergot or any of its preparations safely and effectively during parturition the presentation should as a rule be cranial; that there should be no disproportion between the fœtus and the maternal parts, nor any obstacle to deliverance in the genital tract; that the os uteri, if not previously fully dilated, should at least be sufficiently dilatable to allow speedy delivery by the forceps whenever that may become necessary; and that a preparation of ergot should be selected and a dose given calculated to produce the required ecbolic effect.

Under such conditions ergot may be given with utility when required either before, during, or after the second stage of labor, viz.:

In some instances of delay from inertia of the uterus before the full dilatation of a dilatable os, and in which there is any evident danger to either mother or child from protraction of labor:

It may be administered during the second stage in nearly every case of long delay from inertia wherein the presentation is natural and the delivery not otherwise impeded, or in which there is then either reason to apprehend the probability of subsequent hæmorrhage, or any such complication as may call for its use:

During the last stage of labor this ecbolic may be employed to hasten the expulsion of the placenta when delayed by inertia, or for the arrest of hæmorrhage:

After labor ergot may be resorted to either immediately to prevent or check flooding, or subsequently to produce such tonic or permanent contraction as will effectually seal up the urine vessels and so lessen the liability to subsequent septic invasion, or to effect the expulsion of clots and so arrest after-pains:

To stimulate such contraction as may quicken or secure the process of involution after parturition.

In such cases this ecbolic, if given at all, and whether ergot, ergotine, or any other of its preparations be selected, should be employed not in the repeated small and utterly insufficient quantities that have been recommended by some modern writers, but should be administered only once during labor, and then in such a bold, full and effective dosage as may be likely to excite speedy and permanent or tonic uterine contractibility. I generally use the fresh liquid extract of ergot, of which I commonly give a couple of drachms, or some cases three drachms, by the mouth, together with a drachm by deep hypodermatic injection in the gluteal region at the same time.

My experience points to the conclusion that the dangers which are now so commonly ascribed to the use of ergot in obstetrics are probably largely attributable to its misuse, or administration in unsuitable cases, or in insufficient doses, and therefore furnish no argument whatever against its judicious and proper employment.—Thomas More Madden.

Constipation.—T. Lauder Brunton regards this symptom as the reaction of a healthy organism to unfavorable surroundings, viz., too soft food, too little water, or too little exercise. For the first one may advise bread, either made of the whole grain or with more or less bran; vegetables in abundance, either cooked, as spinach, cabbage, broccoli, Brussels-sprouts, cauliflower, carrots, turnips, parsnips and the like, or raw, as tomatoes or celery. Fruits are of advantage—melons, apples, oranges, and figs. When stewed prunes are inefficient in keeping the bowels open, some senna leaves may be tied in a bag and placed in the receptacle in which the prunes are to be stewed; this plan has often been successful when the ordinary stewed prunes have failed. Sugars in themselves are useful laxatives. A favorite addition to the breakfast is marmalade, which contains vegetable salts and sugar, and also the hard skin of the orange cut into small pieces, which are rather indigestible and give a mechanical stimulus to the bowel. Water insufficient in quantity or abnormal in quality is a cause of dryness of the bowels, which results in constipation; this may be lessened by the taking of a tumblerful of hot or even of cold water on rising in the morning and on going to bed. For waters from a chalky soil, some of the bottled waters, soda, potash, or aerated water, should be substituted. The

habit of evacuating the bowels at a certain time should be formed—at night if the patient suffers from hæmorrhoids. Exercise is of advantage; massage, and rubbing the bowels in the direction taken by the hands of a watch, are also useful. In delicate women, especially those suffering from ovarian or uterine trouble, exercise may be harmful. Open-air defæcation causes a stretching of the floor of the pelvis and affords support to the fæcal mass as it is forced backward by the action of the abdominal muscle. This can be imperfectly imitated in the closet by the patient leaning forward to an acute angle. In some cases hydropathic treatment is useful—wet compresses to the abdomen two or three times daily, and sitz baths, cold in summer and with the chill taken off in winter. —*The Lancet* (London).

---

*Taka-Diastase in Various Gastric Disorders.** —Since this agent has been introduced into medicine and its amylolytic action demonstrated, it has been employed in various forms of gastric disorders. But although the amylolytic action of Taka-Diastase has been settled beyond all doubt the absolute indications for its use are still ill-defined, for no one has yet tested its action upon digestion within the stomach itself.

It has generally been stated that Taka-Diastase is indicated in amylaceous dyspepsia,—but "amylaceous" is a vague term that but signifies a symptomatic condition and not a definite disorder.

As the result of a series of experiments the following evidence was evolved:

Taka-Diastase produces no change upon either the motor or secretory functions of the stomach under normal conditions, neither does it in cases of nervous dyspepsia with normal motor and secretory functions:

In atony of the stomach with normal secretory functions it somewhat increases the motor function without any increase in the secretion of the acid or effect upon the digestion of the starches:

In cases of purely nervous subacidity there is no difference in the secretion of acid or the digestion of starches, no matter whether Taka-Diastase has been taken or not; but where there is subacidity with chronic gastric catarrh the total acidity and percentage of hydrochloric acid is much increased and the digestion of starches aided:

In subacidity Taka-Diastase seems to exert a most remarkable effect upon the digestion of starches as well as in decreasing the excess of acid and increasing the motor functions of the stomach:

Where there is an absence of salivary secretion Taka-Diastase manifests a markedly beneficial action upon gastric digestion; the total acidity and percentage of hydrochloric acid is markedly increased, the motor function much improved, and the digestion of starches further advanced.—Friedenwald, in *New York Medical Journal.*

* Read before the Medical and Chirurgical Faculty of Maryland.

Hay Fever.—The affection is undoubtedly one of uric-acidemia. The palliative treatment consists in promptly freeing the blood from it by means of an acid, such as acid phosphate in doses of from one to two teaspoonfuls in a glass of water at bedtime and on awakening in the morning. A copious draught of hot strong coffee taken on awakening in the morning will, in some cases, ward off the attack.

In very obstinate cases a morning dose may be taken of morphine one-eighth grain combined with one four-hundredth grain of atropine; this may be repeated in an hour or two if it does not entirely relieve sneezing, hydrorrhœa, and stenosis. A menthol inhaler also affords much relief. All seem to derive much benefit from home treatment with a mild spray of camphor-menthol.

It is necessary to reduce as much as possible the use of those foods increasing the actual formation of uric acid, such as meats, sweet wines, and beer; limit diet to fruits, vegetables, milk, and fats; eggs and fish should be used very sparingly.

A course of the salicylates, salicin, lithium salts, etc., will remove the excess of uric acid. If an alkali be given at the outset it is likely to produce uric-acidemia and precipitate an attack. For an attack, then, a dose of acid should be given to free the blood from uric acid; then the salicylate of soda should be given for two or three days, or longer, to sweep it out of the body; but the salicylate should *not* be given during an attack, for it may aggravate the symptoms.

Of course any organic intranasal affection, as hypertrophies, polyps, etc., must receive attention. A vitiated condition of the blood or a depressed condition of the nervous system must be corrected. — Bishop, in *The Laryngoscope.*

The Use of Thyreoid in Lactation.—In my opinion there exists in the medical profession an appalling amount of ignorance concerning the management of disturbed lactation. Frequently on the one hand a child is kept blindly on the breast milk simply because it

is breast milk; so on the other hand an infant is instantly weaned and the mother simply told her breast milk disagrees with the child. When a really delicate infant is weaned during the summer months I do not think I can be accused of exaggeration when I say such a child in the vast majority of cases will certainly die of summer diarrhœa. Every effort ought to be made to increase the quantity and improve the quality of a nursing mother's milk, and my observations indicate that thyreoid acts as a galactagogue in a large number of cases. If this is further borne out I shall not feel disappointed in having called attention to the action of this medicament, which promises to be of such great importance in the management of disturbed lactation.—R. R. STAWELL, in the *Intercolonial Medical Journal of Australasia.*

New Operation for Hydrocele.—Puncture the sac in the usual way, and when about one-third or one half of the fluid has been withdrawn inject two drachms of a saturated solution of bichloride of mercury in glycerin, and allow to remain from a half-minute to a minute, molding with the fingers. Now draw off the whole of the fluid contents. Very little pain is experienced, and unless the patient is nervous and takes an anæsthetic he is able to move about immediately after the operation. For the next few days he must, as a rule, lie about, but need not in any case be confined to bed, and in a week or less he is quite well.—*International Medical Journal.*

[Neither this or any other of the so-called "new" operations afford the satisfaction and good results that accrue to the double puncture and loop seton, providing the latter is moved every day.—ED.]

Resection and Extirpation of Larynx.—Many lives could be saved if the diagnosis of malignant tumors could be made earlier. Mikulicz found that a normal function can be retained if two-thirds of the larynx can be saved. Important in this respect is the secondary suture to decrease the size of the wound, and the prevention of the formation of epidermis from the edges in. In thirteen cases operated on, four remained in good health since—one and one-half to eight and one-half years. One succumbed shortly after the operation; another died later of phthisis. In five cases the tumor grew again in three to ten months, with a fatal result in four. In six cases superior tracheotomy was performed, and inferior in the rest. Hæmostasis was secured by ligatures and lateral compression; only once was the thermo-cautery necessary. The frequent changing of the bandages is very important. Food may be taken by the sound through the wound or lower nasal passages.—*Centralblatt für Chirurgie.*

Inflating the Ear.—Every aurist is familiar with the disagreeable experience complained of on introduction of the Eustachian catheter through the nares. I seriously question if there is ever a patient who does not object. While treating a patient for tubal and middle-ear catarrh I found it impossible to introduce the catheter through the left nostril. Turning the beak of the catheter downward in the pharynx and across behind the posterior edge of the septum towards the mouth of the left tube and then pressing the instrument very gently against the ala of the right nostril, I found the point entered perfectly well into the post-pharyngeal opening of the left tube. I was now able for the first time to successfully inflate the left middle ear, much to the joy of myself and patient.

Since then I have used the method on all patients where it was necessary to inflate with the aid of the catheter.—RUSHIN, in *American Medico-Surgical Journal.*

Fish Diet in Chronic Nephritis.—I put my patients on an exclusive fish diet, selecting fish that contain the most iodine, with once in a while a small amount of some vegetable. The improvement is prompt and radical. One case that had been treated in vain at Paris for two years yielded in a few days to my treatment. The patient is now in magnificent health, after seven years, with no restrictions as to diet necessary. This treatment is based on chemico-clinical studies and is invariably to be preceded by careful analysis of the urine, and must be limited to those cases that are in a generally satisfactory condition, without too large a proportion of granular cylinders, and in whom the urea, the density, the phosphates and phosphoric acid are normal or above, with over 800 grammes of urine eliminated in the twenty-four hours.—FERRAN, in *Archivos de la Policlinica.*

Foreign Bodies in Alimentary Canal.—A man aged sixty-seven swallowed a dental plate with four incisor teeth. There were no metal hooks, but at each end was a hard rubber fork which fitted the first molar. I advised a large amount of potatoes and as a

placebo exhibited a small dose of belladonna. In seventy-two hours the plate was voided, there being an attack of vomiting and at the same time considerable griping; there was slight colic eighteen hours before. The amount of potatoes consumed was nearly twenty-one pounds.—W. H. BROWN, in *Medical Chronicle.*

Strophanthus.—After careful clinical study with tracings the conclusion was reached that this is the drug of choice in all cases in which it is desired to establish compensation; in all cases of arterial degeneration in which a remedy that causes more energetic cardiac contraction is required; in all cases of cardiac diuresis where diuresis is necessary; in all cases of weak and irritable heart; and in all cases of cardiac diseases in childhood or old age.—WILCOX.

Fistula in Ano.—A simple fistula with a straight course and no branching or tributary tracts may be quickly relieved by completely excising the diseased tissue and obliterating the entire wound cavity by means of catgut sutures. No sutures, however, should pierce the mucous membrane. The same operation may be performed in the more complicated fistulas, but the chances of primary union are correspondingly less.—*Massachusetts Medical Journal.*

Senile Cystitis.—

℞ Fluid extract hydrangea, 2 drachms.
Comp. tincture gentian, 4 drachms.
Tincture staphisagria, 1 drachm.
Tincture cannabis Indica, 1 drachm.
Syrup bitter orange, sufficient to make 4 ounces.

A teaspoonful three times daily.

—HOPKINS.

Throat Mirrors.—All mirrors used in throat and nose work are unaffected by the condensation of moisture thereon, if they are first smeared with soap and then polished with a dry cloth.—*New York Medical Times.*

[Very true; but any fat, and glycerin especially, is equally effective.—ED.]

Calcium Chloride in Itching.—Give the drug in twenty-grain doses in water after meals. I have seen no absolute failures, but it remains to be determined in what class of cases it is most useful. In long-standing cases it should be tried for some length of time.—SAVILL, in *British Medical Journal.*

Constipation in Children.—Castor oil heated and thoroughly applied to the abdomen will often move the bowels as effectually as when given internally.

[So also will equal parts soap liniment and tincture aloes, employed in same way, in very small portions.—ED.]

Inguinal Hernia.—Marcy's operation will give the best results—I mean the operation by closing the internal ring under the cord with kangaroo tendon. It is displeasing to me to have this operation called Bassini's because the operator does not happen to use Marcy's needles or cobbler's stitch.—ROCKEY.

Abortion of Bubo.—When suppuration is not too far advanced pressure by folds of cotton carefully adjusted and a cocoanut-sized wad of tightly compressed cotton placed over the whole and retained by a very tight spica will produce absorption nine times in twelve.—GÆTHER.

Pterygium.—Touch the apex of the growth with a platinum probe heated to redness. This causes the vessels of the mass to shrivel up and disappear.—*Annals of Ophthalmology and Otology.*

Nuclein in Puerperal Sepsis.—Hofbauer reports seven cases treated successfully, and adds when the nuclein is used promptly good results are obtained.—*American Journal of the Medical Sciences.*

Chronic Leucorrhœa.—This yields more readily to Donovan's Solution than any other remedy, the arsenic acting as a local and general tonic.—*Medical Times.*

Hæmorrhoids.—The local application once a day of a two-per-cent. solution of silver nitrate is recommended as a simple cure for small piles.—*Southern Clinic.*

Varicocele.—Never operate on both sides at one sitting. The accident of atrophy of both testicles has been known to follow.—*Cincinnati Lancet-Clinic.*

Chronic Cystitis.—Remember the continued administration of colchicum in this malady may aggravate it.—*Medical Summary.*

Medical Progress.

SCIENTIFIC PALMISTRY.—To know the mental constitution of an individual is a great step toward being able to tell his fortune. Hence all means that enable us to ascertain, by actual inspection of outward forms, the physiological condition of the nervous system and its comparative development place us in a position to forecast with approximate accuracy the future of the individual. Phrenologists claim to be able to outline the mental characteristics by an examination of the cranial areas. But this, after all, is only the fringe of the subject, and one is fain to ask why investigators should deliberately confine their attention to any one area of the body surface, when every hair, every wrinkle, every curve, every gesture is pregnant with hidden meaning to the initiated. The relationship between bodily development and brain conditions in their pathological aspects has received considerable attention abroad, in France more especially, but a group of workers in this country, with Doctor Francis Warner at their head, have been laboring unostentatiously for years in the same direction. The amount of actual work that has been done in the matter of direct observation and inspection is something enormous; and although the subject, as embodied in various reports and contributions, does not seem to have the gift of interesting the profession as a whole, a very perfunctory study of the data thus accumulated is sufficient to prove that information of the greatest value is in the process of being acquired. The brain, it is hardly necessary to point out, is an integral part of the body and shares in the conditions affecting development which preside over the evolution of the body as a whole. It follows even in the absence of the proofs which are laboriously being furnished that outward and visible indications of defective development are likely to be reflected in the innermost recesses of the nervous system *quâ* the mind. In the elaborate paper which was read by Doctor Francis Warner at the last meeting of the Royal Medical and Chirurgical Society special stress was laid upon the correlation of defective development and abnormal nerve signs with mental dulness. It is a rather uncomfortable reflection that our defects, if any there be, are writ large upon our bodies for the edification of the trained observer, the only consolation being that such trained observers are few and far between. The stigmata of degeneracy, apart from the grosser deformities, are irregularities in the size, form, and proportions of the cranium, palate, and external ear, and in the individual features, as well as in stature and growth. Other objective indications are to be found in abnormal movements, either of the body as a whole or of the facial muscles, the fingers, and especially in the expression, muscular tone, and movement in the frontal middle region and lower part of the face. It is significant that nearly thirty per cent. of the boys and upwards of seventeen per cent. of the girls were scheduled as presenting some defect. We hasten to remark that the various abnormalities classified as defects have not all an equal diagnostic value. It is fortunately possible to have large, prominent ears without any necessary mental deficiency, and one may habitually wrinkle the forehead or pout the lips without falling into the category of imbeciles or idiots. When, however, we find a certain number of these physical signs of degeneracy associated in the same individual their presence constitutes *primâ facie* evidence of defective development with all its consequences. This hypothesis is confirmed by observations from another point of view, for the presence of bodily deformity among the imbecile population of our asylums, and in a less degree among the lower grades of children, is a matter of common observation. We have incidentally referred to the ears as one of the signs of degeneracy; but there is more in this than meets the eye. Taking a typical large, outstanding, coarse-looking ear, we find, on scrutinizing it closely, that growth has been greater on the posterior than on the anterior surface, the antihelix is absent, and the helix in great part wanting. Such an ear, though not a "thing of beauty," may be a better connector of sound than the normal appendage; but it must not be regarded merely as the attribute of persons undergoing evolution into beings with superior acoustic apparatus, but as the result of a difference in the complex ratios of growth which are so characteristic of degeneracy. We cannot even grin with impunity, for repeated grinning is given as an example of "uniformly repeated series of movements" which possess a very great significance, and overaction of the frontal muscles, resulting in the production of horizontal creases, is equally damnatory. The tendency to call unnecessary movement muscles into action, as when a child in writing puts out its tongue, squirms on its chair, and becomes fidgety, is described as evidence of the "augmenting series of movements" which in a normal brain are indicative of excitement, and in an abnormal brain indicate an essential want of controlling nervous influence. Each class of signs is essentially due to

defective relations, in time or quantity of action, as controlled by the environment, and the two classes of defects are correlate. When so associated in a persistent form they are apparently dependent upon, or sequential to, circumstances which affect both the ratios of development in parts of the body and the building up of the nerve centers—which is a scientific way of saying that an ugly *quâ* abnormal feature has its counterpart in the brain. We are not in a position to controvert the observations on which these conclusions are based, but it must occur to every thinking person that instances are numerous of persons presenting extremely well-marked signs of degeneracy who were, or are, nevertheless possessed of great intellectual powers. It would be invidious to criticise contemporaneous celebrities from this point of view, the more so as in reality it has no bearing on the questions at issue. It is possible to develop a monomania without any obvious impairment of the reasoning powers as a whole, and a want of control over one's tongue when signing a check is not inconsistent with great administrative ability; indeed one is occasionally tempted to believe the poet who laid it down that genius is nearly allied to madness. Certain it is that many of the great men whose names figure large upon the pages of history and science and literature came of a highly neurotic stock, and themselves gave unmistakable indications of physical degeneracy. This may perhaps account for the fact that great men rarely leave great sons, the degeneracy having progressed a stage further in their offspring. We forbear from carrying this line of argument further out of consideration for the sons of great men, whose name is legion. The inheritance of a great name is of itself a sufficient burden without our adding to it by demonstrating on their persons the outward and visible signs of transmitted and intensified degeneracy.—*Medical Press and Circular.*

Misplaced Sentiment. — Some months ago in St. Louis a little girl, after some dereliction at home, fled from the house of her mother by adoption, and on being pursued by the latter placed a pistol to her body and pulled the trigger, wounding herself, but not accomplishing suicide as was her intention. She was taken to hospital for treatment, and the case was taken up by an evening paper which filled its columns for several days in its luridly sensational style with articles about "Little Cosette," as it had dubbed her. All sorts of abuse was heaped upon the woman who "had driven the child to suicide to escape her hellish tortures," and not one word from the "diabolical creature" was allowed in her defense.

Column after column of sensational stories, detailed by the child (who rapidly recovered from the self-inflicted injury) to the willing ears of the reporter, held up the "Little Cosette" as a little angel and a heroine (all of which stories turned out subsequently to be the inventions of a very wicked young moral and sexual pervert), the result of which was that the good ladies of the city, and not a few men, showered attentions on the wounded child. She could not make a wish that was not granted after the Fairy Godmother style. She wished for a doll, and lo, the next morning she awoke with a great, big doll, handsomely dressed, lying in her arms. Sweetmeats, fruits, flowers were poured over her, and finally a sum was raised sufficient to remove her from her former dismal surroundings and give her an education at some boarding-school. Every day the newspapers faithfully recorded all these things. So great, in short, did the "Little Cosette" furor become that charitable associations finally got to fighting as to which of them should have the honor of caring for the child.

What was the result? Just what any sensible person who had studied the philosophy and history of suicide would have foretold. There was soon another "Little Cosette" to keep the first company. Another little pervert, hearing and reading all these reports, longing for dolls and bon-bons, for the petting of the ladies, and for notoriety, attempted suicide as the quickest way to get them. Then the paper in question renewed its yawps, painted more lurid pen pictures, and one day published an illustration showing the two "Little Cosettes" together. Accompanying the cut was a story telling of the "strange friendship" that had grown up between the pair, how they would sit holding each other's hands by the hour, etc., subsequently easily explainable.

Along about this time it developed that the first "Little Cosette" was a very depraved young female, and that the second was no better, and the public was allowed a surcease of the sensational "slobber" of the newspaper. Had it been allowed to progress a few days longer the hospital would have had its beds occupied by a dozen "Little Cosettes," and it is probable that slabs in the Morgue would have held as many more.

There is nothing more infectious than suicide, under any and all circumstances. The act of self-murder committed by one "miserable" seems to impart courage to others to

follow the example thus set them. And when an attempt at suicide is converted into a heroic and praiseworthy act by the press and public; when an unsuccessful attempt is rewarded by dolls and flowers, bon-bons and kisses; when what seems to children a fabulous sum of money is raised to take care of the future of the unsuccessful candidate for the grave—what is more natural than that she should have imitators, not only among her own reckless and depraved class of youngsters, but among other unhappy and oppressed (or fanciedly oppressed) children? We hope that we have heard the last of the "Little Cosette" business for awhile, as the results in the two cases cited are scarcely consoling to those who made fools of themselves over the pair.—*National Druggist.*

Autoplasty of the Prepuce Among the Ancient Hebrews.—When Christianity became paramount in Syria the Jews who adhered to their pristine customs were exposed to grievous persecution. The following example of the shifts they were put to in order to conceal their identity is related by Doctor Beugnies of Givet in his work on Circumcision in Palestine, and will be found of interest not only from a historical but also from a surgical point of view. "While the Grecian dynasty was supreme at Antioch circumcision went through a crisis which may be described as epic. Antiochus Epiphanes formally forbade the practise with regard to the newly-born under pain of death to both mothers and offspring, and at least two women convicted of disobeying the royal edict were cast from the summit of the city ramparts with their infants at their breasts. Numbers of Israelites, anxious to propitiate the good graces of their sovereign master, did not hesitate to attempt the reconstruction of their ablated foreskins—*sibi præputia fecerunt.* By this we should probably understand that they ceased the mutilation of their male children, for autoplasty of the prepuce is such a delicate operation that before we can believe in its performance at that early date the most ample proof is necessary." Curiously enough, some time after the publication of his book Doctor Beugnies came across the required proof in a short note which he attributes to Broca. According to this authority, rehabilitation of an excised prepuce was quite a common operation in ancient surgery. Verpi in Rome were specially taxed, besides being excluded from the privileges of citizenship, and in order to escape from these disabilities they were willing to submit to the following plastic procedure: In the first place the surgeon made a circular incision round the body of the penis at a suitable distance from the end of that organ and implicating the skin alone. He next detached the latter from its adjacent tissues to within a short distance of the corona, and then completed the operation by everting the ring of skin over the exposed glans, where it formed a more or less perfect prepuce. A highly inconvenient cicatrix was naturally the result of this attempt to remedy man's interference with Nature, but apparently the patients decided to put up with this disadvantage for the sake of the substantial benefits that otherwise accrued to them.—*The Lancet* (London).

A Substitute for Amputation.—A new and simple mode of treatment has been introduced in France by Reclus whereby it is claimed a large proportion of injured limbs now usually amputated can be saved. Whatever the extent or gravity of the lesions he merely wraps the injured limb in antiseptic substances by a veritable "embalming" process, leaving Nature to separate the dead from the living tissues. This method possesses the double advantage of being much less fatal and of preserving, if not the entire limb, at any rate a much larger part than would be left after amputation. He advocates this very conservative treatment on account of the excellent effects of hot water, which he uses freely. After the skin has been shaved and cleansed from all fatty substances by ether, etc., in the usual way, a jet of hot water 140° to 144° F., but not higher, is made to irrigate all the injured surfaces, and to penetrate into all the hollows and under all the detached parts of the wound, without exception; this is the only way of removing all clots and to wash away all foreign bodies, together with the micro-organisms they may contain. The advantages of hot water at this high temperature are: It is at this temperature antiseptic, heat greatly increasing the potency of antiseptic substances: It is hæmostatic: It helps to compensate for the loss of heat resulting from the bleeding, and especially from the traumatic shock.

After the "embalming" process, and the dead tissue has been separated from the living, the surgeon has nothing to do except to divide the bone at a suitable spot.—*The Hospital.*

A Case of Benzene Poisoning.—A child twenty-one months old drank an indefinite amount from a bottle of benzene. In from half to three-quarters of an hour it was per-

fectly unconscious, the pupils dilated to the maximum, the skin cold and cyanotic, the breathing shallow and rapid, and the pulse barely perceptible. The stomach was washed out and milk thrown in; injections of ether given; and finally a lukewarm bath was administered, with cold affusions. The urine, passed spontaneously, was free from albumen and sugar; the temperature was 101.6° F. After a very restless night the temperature was 99 5° F., but by evening it had risen to 102.5° F. On the following day the child was conscious, but in the middle of the day the temperature, without known cause, was 104.3° F. A quiet night followed. On the next day the morning temperature was 99.8° F., and the evening 100.7° F. Rapid recovery then followed. The fever was attributed to acute gastritis from a slight caustic effect on the mucous membrane of the stomach.—WITTHAUER, in *Centralblatt für Innere Medicin.*

INTESTINAL SAND AND MUCO-MEMBRANOUS ENTERITIS.—In two instances I found the fæces mixed with grains of yellow sand, one-quarter to one-half millimeter in diameter. In one the grains were often agglutinated, and formed masses much resembling white pepper kernels. In their composition the salts of lime predominated, and in this they resembled the calculi sometimes found in the appendix, intestine, nasal passages, bronchi, etc. In both cases muco-enteritis was present, which I regarded as the cause of the concretions, as the membranes contained microscopical crystals of calcium phosphate. The abnormal deposits of these crystals in the mucous membrane might cause muco-enteritis, and the stasis due to constipation would allow the formation of the palpable grains of sand. Others have mentioned the co-existence of muco-enteritis and intestinal calculi.—MATHIEU, in *Gazette Hebdomadaire de Médecine et de Chirurgie.*

TWO THOUSAND GALL-STONES.—At a recent meeting of the Toronto Medical Society Doctor J. F. W. Ross presented probably two thousand gall-stones which he had removed from a clergyman; they varied in size from a grain of sand up to a small bean, were black in color, and faceted. The sufferer had been prepared for operation before at Johns Hopkins; but as his colicky attack passed away on the administration of olive oil and phosphate of sodium the operation was deferred. His two-hundredth attack was a sharp one, and he was anxious for relief, which was given surgically by Doctor Ross. The stones were partly removed with a scoop and partly washed out. The gall-bladder was fastened into the wound and a drainage tube inserted. The case was progressing favorably at the time of reporting.—*Canadian Medical Review.*

ENUCLEATION OF BOTH EYES IN EXOPHTHALMIC GOITRE.—The case was marked by sudden onset of diplopia and dizziness, followed by protrusion, first of the left, later of the right eye also; then enlargement of the thyroid, protrusion becoming excessive; pain extreme; temperature over 100° F.; pulse, 120. Pus in places behind cornea, iris, and choroid. Finally enucleation. The left eye improved for a while under thyroid extract, but later the protrusion returned and the eye was finally lost. On section the eye was found to be the seat of a purulent choroiditis, with swelling of the optic disc and nerve, extending some distance back from its entrance into the eye.—SPALDING, in *St. Louis Medical and Surgical Journal.*

CANCER OF RECTUM.—Cancer of rectum can be cured in over ten per cent. of the cases:

The mortality from radical operation, though still considerable, is not alarming, and is decreasing with every year's experience:

The radical operation prolongs life on the average over 100 per cent.:

As a palliative measure excision is far more successful and beneficent than any other:

The sequences, though numerous, are not at all intolerable, and should weigh little when it is a question of so serious a disorder as cancer of the rectum.—TUTTLE.

FÆCAL IMPACTION.—If firm pressure be made with the finger-tips against the mass of fæces, and the fingers then slowly and carefully withdrawn, a peculiar sensation is perceived, a sensation the same as that received when the fingers are smeared with grease, pressed against the opposite palm, and then slowly withdrawn. To obtain this sensation, the mucous membrane of the intestine must be somewhat dry, the fæcal tumor of such a character as to dent upon pressure, and there must be gas enough present to cause the intestinal wall to resume its former position as soon as the pressure is relieved.—GERSUNY, in *Wiener Klinische Wochenschrift.*

The Medical Age.

Vol. XV. DETROIT, JULY 10th, 1897. No. 13.

Original Articles.

FATTY ILLS AND THEIR MASQUERADES.

(III.)

BY EPHRAIM CUTTER, M.D., LL.D.

Insanity sometimes figures as a cause when it is only a result of fatty degeneration in the cerebrum from retarded and impeded circulation, or from embolism. It is not insisted that these alone are causal, but that they sometimes cause insanity—a very broad term, which in law covers all its varieties. Insanity from fatty degeneration is evidenced by imbecility, arcus senilis, fluid fat in the blood from beneath the skin, occasional or constant fatty epithelia casts of the kidney tubes, and albumen. It also may be recognized in addition by the ophthalmoscope revealing fatty changes in the eyeball. Insanity from this cause should be reckoned as a masquerade of fatty ills, since its cause may be unwittingly kept at work by food which, thought to be the most wholesome, produces the ills it is designed to evade.

One of the most learned and successful physicians, said to have a larger income from his profession than any other American, told another medical man that he diagnosed locomotor ataxia from the fatty degeneration in the white blood-corpuscles as well as by the rottenness of the red blood-corpuscles, which comes between the rottenness of the red blood-corpuscles of rheumatism and consumption. In 1892 I had a case of locomotor ataxia when at one time locomotion was impossible without help. While it was being regained the right arm would be lowered by the torsion of the trunk, so that the hand would nearly come to the ground. Several other physicians saw the case, and all coincided in the diagnosis, and excepting myself made a fatal prognosis. The man was then about thirty years old, and suffered terribly with pains. He was put on strict diet, and after much tribulation was restored to health, so far as locomotion and the common duties of life are concerned, but his handwriting is still ataxic. This case is mentioned because I think I ought to have detected the pre-locomotor ataxic state in him. I did find the fat in leucocytes occasionally, albumen in urine, casts occasionally, and fatty epithelia, and I was on the lookout for kidney destruction. The essence of locomotor ataxia seems to be in a thickening of the fibrous sheaths of the spinal nerves, as well as a degeneration of the spinal cord itself. I must say that the fibroid and fatty degenerations are very closely akin; clinically they are alike, to be cured by Nature's being given plenty of force to work with, and mostly by stopping causes—to wit, fats and carbohydrates in too great excess.

Melancholia means "black bile," which the ancients recognized as a symptom of a form of insanity, and perhaps truly. Black bile is apt to be inspissated; and thus retarded and impeded in circulation it will take but little to make the normal fatty cells of the liver, complex in its anatomical structure and physiological functions, run over into fatty degeneration—that is, if our definition is correct. The relation of liver troubles to the condition of the nervous system is very close and depressing, as instanced in the section on general debility: one reason is, if we consider life to be a question of expenditure of vital force, that it must take more force to run the liver when its circulation is sluggish and difficult; then this abstraction of force takes from the other organs—the brain for example,—and the outcome is, there is not force left to run the brain properly. From all this follows the depression of the nerve centers called melancholia. Of course the science of language, notwithstanding the

higher critics, is imperfect, and other causes may exist for melancholia; but not being in position to rewrite the English language one must be content with nomenclature as it is, and satisfied with this little hint to try to show the way in which the thought of those who come in contact with this presentation may properly employ their investigations. Look out for fatty degeneration in melancholia!

Neurasthenia is a term used to denote a nervous prostration whose origin is unknown or obscure, and from what has been said it may be inferred that fatty degeneration may be a cause; indeed I am convinced I have seen neurasthenic cases of fatty degeneration, and that there is always a cause for neurasthenia, discovered or not. The kinship of male neurasthenia that arises from a peculiar urinary catarrh, which often disappears and is replaced by fatty epithelia, casts of kidney tubes, and albumen in the urine (one or both), is I think very close, and makes it proper for neurasthenia to be classed as sometimes a masquerade of fatty degeneration. At any rate it is worth studying in this practical connection.

Paraplegia is a variety of hæmorrhagic apoplexy where both sides of the body lose their motor, and sometimes sensory, functions because of the greatness of the pressure on the brain; it is mentioned because it is a masquerade of fatty degeneration not to be overlooked. It is due to a more extensive rupture of the cerebral arteries than usual, because the normal strength of these arteries has been weakened through the substitution of muscular and sometimes fibrous tissues by oleic acid, palmitic acid, and cholesterine, etc., which substances have no textile strength to resist centrifugal forces as they do centripetal forces when blood is forced and buried in the outside soft cerebral parenchyma. Paraplegia is mostly a question of strength of structural elements whose nature is softer than normal. From this point of view it is wonderful paraplegia does not oftener occur.

Paresis means general paralysis of motion (and not of sensation), more or less complete; if complete there would be no paresis, because death would at once follow from heart paralysis. It is rather a paralysis resulting from the degeneration of the tissues of the body, not confined to the muscles, but embracing the structural elements of the nerves, fibrous tissues, etc. It is most likely to be fatty in some one or more of its forms. There are partial responses to stimuli of the sensory or motor nerves, but there is also a relaxation which shows that the neurotic system is paretic. Instead of masquerading as a separate disease it should appear as only one of the manifestations of fatty ills which demand an interstitial nutritive treatment whereby Nature can and will restore the degeneration, entirely remove the fat intruders, and thus cure on common-sense principles.

Pernicious anæmia is believed in America to arise from terminal arterial vessels fattily degenerated, leading to a pernicious loss of blood discs so grave and severe as to be fatal. The main points are: It usually occurs in the last stages of fatty ills: Both voluntary and involuntary muscles are involved: The parent cells in the blood-glands are degenerated: Blood is not organized in normal quantities: Patients grow bloodless and weakened. The treatment should be that of the fatty ills.

After more than thirty years of consideration, puerperal convulsions seem to me to be due to an acute fatty degeneration of the kidneys, placenta, etc. I am well aware that others do not entertain this view, but how can one read the signs and symptoms otherwise? Let me relate a case:

In 1880 a young wife was pregnant with her first child. At her marriage I met her; she was then thin, slim, apparently well. I saw little of her before she was far advanced in pregnancy, when her appearance was so changed that I hardly knew her; a lady very stout, obese, and bloated, with eyelids œdematous and face waxy. She made little complaint. She had lived a life of no work, eating all the "good things" she could find, boarding with her mother and having an easy time. The urine contained plenty of hyaline and fatty cylinders from the kidney-tubules, abundant fatty and deformed epithelia, and was two-thirds in bulk albuminous. I gave her simple remedies and arranged for summons when her labor should begin. It happened that night. She got through well. The babe weighed three and one-half pounds. The placenta was one-third degenerated into what appeared to be ovoid and obovoid masses, possibly syphilitic or cancerous even.

I had not met with such appearances before, nor have I since. The clinical morphology of the placenta showed the whitish hard masses to be made up of plates of cholesterine, as a rule longitudinally parallel with the long axis of the placental tufts. When the babe was ten days old, and the mother doing well, a steam fire-engine, for practise, was attached to a hydrant in front of the house where she was and set going in spite of the protestations of those concerned in the care of this patient. The shrill sound of the whistle blown in defiance sent her into convulsions, which lasted eighteen hours, consciousness not returning until two days later. She was treated by ether anæsthesia, calomel and jalap purging, and beef essence *ad libitum*, combined with very careful watching and nursing. In less than one week the albumen and the casts disappeared, and she gradually convalesced into a good recovery, though the left side of the face was paralyzed for some months afterwards. At the present time there is a slight facial paralysis. Otherwise she has developed into a woman of splendid capacities and mental abilities.

To show that Bright's disease of the kidneys has convulsions as a symptom I can refer to a case of a man who also came near dying in like convulsions, but survived some months without convulsions on the diet which is employed to arrest fatty degeneration. No doubt there was uræmic poisoning in these cases; still the essence of the disease was the fatty degeneration, as manifested by the physical exploration. How can the kidneys properly eliminate urea when they are choked and impeded by fatty metabolism?

If motherhood would feed on two-thirds animal and one-third vegetable food by bulk I think there would never be any puerperal convulsions from fatty degeneration. This is said advisedly, as in the case alluded to two other children were born afterward to the same mother living on this diet; no puerperal fatty ills complicated these second and third labors.

Those who saw the frozen sections of pregnant women's trunks, and witnessed the enormous abdominal distention and the great displacements of the thoracic and ventral viscera, at Berlin Medical Congress in 1890, cannot but believe that the circulations are hampered and impeded. Thus is furnished one of the great prerequisites for fatty degeneration. The wonder is it does not occur oftener, when so many women live to eat, not eat to live.

The case cited had insufficient exercise, which it will be remembered is enough to spoil even horses in a few months by the degeneration in question.

Albuminuric retinitis is a form of fatty degeneration. Lately I was shocked to learn from a most eminent American maker of telescopes that his wife, whom I had met apparently well a year or two previous, had died of Bright's disease of the kidneys. This was undiscovered until just before death, though her medical attendants (he said) had repeatedly examined the urine and found no albumen.—I wonder if they looked for fatty epithelia or cylinders. The detection was made by the ophthalmoscopist. Here is a lesson for the profession! For this want of diagnosis the bereaved husband was so bitter on medical men that I thought he meant me in particular; so I furnished him with evidence such as I am giving here to show that the medical profession was not at the low level he claimed. I did not assert that other medical men knew less than myself, but I did insist that some medical men knew how to detect and treat the disease in question, and that I would not calmly submit to his unsustained assertions. In evidence let me quote from the *Medical Times and Register*,* as to retinitis being a fatty degeneration:

> Œdema of the lower eyelid; the upper has a less lax histological structure,—a very characteristic symptom of Bright's disease:
>
> Dim vision with fading and receding pupil from iris muscles being weak:
>
> Pupils dilated from weak iris muscles:
>
> Michael says that cataract and albuminuria are simultaneous results in the eyes and kidneys from the same general cause—arterio-sclerosis.†
>
> Doctor L. Webster Fox says: "We have the forerunner of non-albuminous Bright's disease in retinal hæmorrhage; there is sclerosis of blood-vessels as shown by whiteness:" Also says, "The capillaries are involved in like changes: Signs of albuminuria retinitis; optic nerve swollen, vascular walls about blood-vessels more or less white."
>
> Forster thinks the disease is due to alteration of the blood which causes degeneration (fatty) on the blood-vessels' walls.‡ Charles Theodore, Duke of Bavaria, found hyaline (fatty) degeneration and

* February 24th, 1894.

† I add, which is due to food.—E. C.

‡ Wrong.—E. C.

endoarteritis in retinal arteries. The middle and internal coats are thickened, and the caliber lessened (*i. e.*, circulation impeded); small fatty granulations sometimes filled the small arteries.

Fibers of Miller late in disease show traces of fatty degeneration, and are full of granulation or small drops of fat.

From what has been said it can be readily seen that rupture of muscle is a masquerade of fatty metabolism. Fat may replace muscular fiber from high feeding without due exercise; from ligatures about said muscles; from the circulation being impeded by the gases of fermentation in the alimentary canal. It is easy to see how such weakened muscles may rupture from violent efforts; but muscles may rupture while doing life's legitimate normal work,—in other words, muscles may be so weakened in substance as to tear themselves apart in normal efforts. It is easy to see how powerful muscular force ruptures the muscles themselves, even when they are not fattily degenerated, as in the case of our Saviour at his crucifixion. He was in perfect health, yet medical men who have critically studied the immediate cause of his death are well satisfied that his heart was literally ruptured by anguish. Christ's death being so much earlier than ordinary in crucifixion caused Pilate to wonder why he died so soon.

Rupture of uterus might come under rupture of muscles, but as it constitutes one of the gravest accidents of obstetrics it deserves a separate mention. The following were the prominent features in a case of mine:

Irish woman aged 28 years; pelvis contracted; previous labor, one, terminated after several days by Doctor Benjamin Cutter by embryulcia. In 1860, July 7th, 9 P.M., I found her with strong pains; os fully dilated; occiput to the right acetabulum; head in superior strait whose antero-posterior diameter was about three inches. For several hours the labor was severe; no headway. Forceps refused at first; but just as they were about to be resorted to she urged manual help. Passing hand still further, to my horror I found a free and open space in which were felt folds of the peritoneal surfaces, the wedge shape of the liver, the feet and hands of the child, the placenta, etc. The uterus was firmly contracted and lying to one side. It was the first time my hand was ever inside the abdominal cavity of a living human being!

Things were so critical that I at once turned and delivered by the feet. The maneuver was accomplished with difficulty, as the head naturally hung long in the contracted pelvis. Only by putting fingers into the orbits was delivery effected, but my fingers were numb for several weeks after. I asked for assistance, but the patient and friends insisted on my carrying the case through alone.

After delivery the patient had a pinched face and Hippocratic countenance; no pulse in wrists; extremities cold; sighing respiration; great distress in abdomen. Was constantly begging and entreating to be allowed to sit up. Great restlessness, constant vomitting, and intense thirst. Freely gave tincture of capsicum, ergot, Hoffman's anodyne, gin, and tincture of opium. From these some impression was made on the pulse and symptoms. Abdomen very tender to the touch and very painful to patient. Death followed twenty-nine hours after delivery. The rupture involved the lower part of the uterus and the upper part of the vagina, posteriorly.

If I could control the diet of obstetrical cases, it would be two-thirds animal and one-third vegetable food by bulk. While I know that this plan gives fine normal developments in the epithelial cells of the mammary gland, I feel quite sure that it would prevent abnormal fatty degeneration. To show that this question occupies the thought of obstetricians I quote from the *University Medical Magazine*:*

Regarding fatty degeneration of the uterus during pregnancy L. M. Bossi† found this in active process in three human uteri, one removed at the eighth month of pregnancy and the other two at term. He inquires whether this is the physiological condition, and if so whether it may not explain the wonderful rapidity with which involution of the uterus after labor normally takes place. It may be asked further whether in this fatty degeneration there exists an explanation of some cases of inertia uteri in labor. Bossi has attempted to investigate the subject by the experiments on animals of tying the uterine blood-vessels, but does not regard the results as applicable to the human uterus.

I suppose most clinicians agree that scarlet fever without the stigmata of fatty degen-

---

*March, 1897.

†*Annali di Obstetrica e Gynecologica*, December, 1890.

eration is shorn of many of its perils. The signs of fatty metabolism and scarlet fever simply tally. Both may have albumen, fatty epithelia, and cylinders in urine, and dropsy in all forms; also diseased epithelia in urine, which have much to do with the cause of fever. I once saw a case where severe scarlatina occurred at the age of six years, but who died at the age of thirty-two, with extensive fatty metabolism in heart, kidneys, liver, and brain, as the autopsy showed; besides, three years before death she had puerperal convulsions under my father's care. Professor D. Humphreys Storer, of Boston, saw her in consultation; he then taught that these convulsions were due to fat metabolism, and certainly she had all the signs of it. She recovered. A year and a half later she had facial paralysis on the left side. Finally her death came from a second hæmorrhage into the same ventricle, for I found it completely filled with a fresh clot of blood. I also found the fibrous remains of the first causal effusion inside the left lateral ventricle of the brain. The kidneys had the development of a child of six years. She never was well after this fever, and would probably have not lived to maturity had she not persistently kept out of doors during the day.

The work of the kidneys is vicarious with the skin, and when invaded by scarlatina the result is these organs are overwhelmed, their functions rendered languid or impeded, hence fatty transformation. Surely the rashes of scarlet fever demonstrate that the skin is congested, its capillaries dilated, and its circulation impeded; and as the skin is the largest gland in the body, with twenty-five miles of sweat ducts, this dermal retardation and impeding must be an element in fatty degeneration when it occurs in this malady.

Sclerosis is a term employed when the degeneration is of a denser substance than the tissues it replaces; its nature is twofold, fatty and fibrous. Regarding the former—as has been said before—when cholesterine replaces tissue it is apt to be accompanied by lime deposits which give the artery affected a feel like stone; of course fatty degeneration must follow, even if it has not preceded such sclerosis. The mere obstruction to the circulation, for example, caused by the cholesterine is a sufficient cause. Fibrous thickening or abnormal increase of white or curling fibrous tissue form another kind of sclerosis. This tissue is laid down in a weakened condition and possesses the first elemental cause of fatty degeneration, *i.e.*, retardation and impeding of function; the microscope alone can make out surely the diagnosis of fat-ill sclerosis. Fibrous sclerosis is especially a food disease, and has been found amenable to diet.

I have seen fatty degeneration accompany cancer of the schirrhous variety; my definition of cancer is "tissue under mob law." Mob law defies all rules, and it is not surprising that cancer should include fatty degenerations specially, as in no other organic disease is there more retardation or impediment to the functions than in the conditions called cancer. I have now a case of schirrhus of the left breast, where the urine and the blood show fatty degeneration. Physicians should look out for this complication in all cases of cancer and sclerosis. It is evident that when the systemic condition is one of fatty degeneration the tissues under mob law and sclerosis will more readily riot. The aim should be to get rid of the fat ill first. When shall we have a better name than "cancer?"

Senile gangrene occurs when an embolus blocks an aged artery roughened by degeneration. It impedes the circulation and in fact produces the very prime causes of fatty degeneration, which degeneration must also have come from the atrophy and wasting induced by the loss of the full normal blood-supply; sometimes the artery feels like a tube of stone or bone. Fatty ills are normal in old age as aforesaid. Senile gangrene sometimes appears like adipocere, a fatty degeneration occurring after death, and thought by some to be due to chemical changes away from the atmosphere. Good authority reports that meat kept under water sufficiently long will change to adipocere.

A friend who had this disease was a rabid follower of the doctrine that "like cures like," and I could not get him to try the food treatment. One leg was amputated; also the other, I think, afterwards. He died. This was doing something contrary to his faith. Such surgery was done years before the Christian era. It is much easier to use knife and saw on a patient than to make him use

knife and fork on food that he does not like. It is a good plan for the aged to drink much water, preferably hot, in order to keep the systemic salts in solution, and to have all the circulations clear and free as possible.

Shaking palsy, Basedow's disease, paralysis agitans, tremor, are varieties of paralysis, slow acting, usually senile, and dependent mostly on fatty ills; probably some sclerosis occurs with them. As aforesaid, fatty and fibroid degenerations are often associated together. The nerve centers of the brain are affected by the degeneration which interferes and cuts off supplies of initial ganglionic nerve force.

M. Liegeois, in the *Journal des Praticiens*,* states he has observed a permanent trembling of the hands in a woman who suffered from aortic insufficiency with visible capillary pulsation. Certainly there was impeded function here. It is interesting also to note that M. Liegeois advises for senile shaking of the limbs, accompanied by a transverse or vertical tossing of the head, an "analeptic restorative diet, river bathing, and infusion of *Chenopodium ambrosioides* (Mexican or Spanish tea)."

This comes very close to the treatment by hot water (which is better than tea generally), by baths, and by feeding for shaking palsy. M. Liegeois deems polyneuritis to be the cause, but is not thickening of the nerve sheaths a part of polyneuritis?

Shock may also be a fatty masquerade. An item in a newspaper under date of March 19th, 1894, says:

> Commodore W. I. Whitney died in New York at the age of seventy-one. Two months ago he was knocked down by a cab in Broadway and fractured his hip. The bone united, but the shock from the injury brought on paralysis and also developed Bright's disease. In 1887 he resigned active service on account of failing health and almost total blindness.

The history of this case reveals fatty ills for thirteen years. While it is true that the "shock" could have accelerated the paralysis and Bright's disease, still the causal lesion is all concealed in the unusually clear medical report as to this distinguished public man. The repair of the hip is very interesting as showing what Nature can do under unfavorable circumstances. In my experience this is more than paralleled in the case of a lady sixty years of age. The bone united well, but she died a few months after of a cancer of the liver as shown by the autopsy, which must have existed for a long time before, as evidenced by a peculiar bronze, ashy countenance, and by the death of a married sister a few years previous of cancer of the brain.

The death of Doctor B. S. Codman of the surgical instrument firm of Codman & Shurtleff, Boston, was said to be due to a fall—"the shock causing Bright's disease and pericarditis." As he was seventy-two years of age it is more than probable that this fatty degeneration was caused before the shock—in other words, the gun was loaded before the trigger was pulled.

Smallpox is often associated with fatty degeneration. When the natural history of this disease is considered it is, in the light of the principles laid down here, a sufficient cause for this disastrous fellowship. No matter which is the masquerade, the fatty ill needs treatment because this partnership may be the chief cause of the mortality. The weakened tissues are just so much a depressant of the vital forces as they are in proportion great or small. But what shall be said when the subject of smallpox is already invaded by fatty metabolism when attacked? The popular answer would be "the patient died because he or she had no constitution to resist." And this would be objectively and theoretically correct,—a system half fat would be phenomenally weak to resist any disease. Death would have more dominion over such cases of variola than where there was no such complication. Some go further and affirm that smallpox would not occur in a perfectly healthy person; there is good evidence for such a view. Is it wise to eat so that fatty degeneration may make patients an easy prey to smallpox?

Softening of the brain is a term often heard, but I have yet to meet any who actually have seen this condition described save in symptoms. It must be admitted, however, that such softening does exist, and from what has been said it must likewise be inferred that it is more likely to be due to fat metamorphoses than to anything else. The brain substance resembles fat; lecithin, one of the fat acids of

*Paris, August, 1896.

butter, is found in normal brains; hence it must be an easy transition from normal cerebral substance to abnormal fat. Indeed a normal brain is not so dense as tallow or lard at a temperature of 400°. In some cases of softening of the brain I have read of there was an oily degeneration, and for these reasons I think it just to place this here as a masquerade.

Syphilis may be a masquerade, and M. Liegeois mentions this disease as a cause of tremor. Doctor Henry A. Robbins in a letter to the writer under date of June 12th, 1896, says:

> Its (syphilis') favorite masquerades are fatty degenerations in all the vital organs, and the symptoms are exactly the same as you have beautifully described under "Fatty Ill Masquerades."

In the post-mortem of a boy that died of hereditary syphilis was discovered undoubted fatty degeneration. I called it "ramollissement" and "extensive softening." In 1874 Professor Heubner showed that syphilis produced opacity, thickening, and diminished caliber of the cerebral arteries, interfering with circulation; thrombosis and cerebral softening. Doctor C. L. Dana, of New York, at the American Neurological Association, 1894, said: "Taking hemiplegia as a whole I find syphilis in thirty-six of one hundred cases. Syphilis causes one-third of all cases of apoplexy." Doctor Heck showed, at a meeting of the Medical Club at Vienna, a babe, the second child of a syphilitic mother, who when eight weeks old showed a syphilitic erythema which disappeared under the influence of iodide of mercury. Later the extremities and penis began to swell and the urine showed albumen, hyaline casts, white and red corpuscles; it was cured by potassium iodide. Doctor L. P. Yandell reported (1878) in the *Maryland Medical Journal* a case of syphilitic albuminuria:

German, male, sixty years old, with general dropsy, albumen, casts and renal débris in urine, pale waxy skin, puffy eyelids, constant indigestion, pain in back, disturbed vision, hemicrania, muscular debility, frequent micturition. He was given one scruple of iodide of potassium in skimmed milk or water every three hours while awake. Dose increased ten grains daily with no bad symptoms nor discomfort. Iron and bitter tonics were given at the same time. Marked improvement at the end of a few days. Throat rapidly healed. Strength, appetite, and color returned. The urine ceased to evince any sign of renal disease. In two months he was well.

Doctor Robbins says: "Syphilis gives rise to the train of symptoms identical with those of fatty degenerations."

There is room for no more evidence. If it is true, as has been stated in court, that sixty per cent. of the human race are tainted with syphilis, it is clear that it may masquerade fatty degenerations. Certainly it furnishes one of the great primal causes of these ills—*i.e.*, retardation and impediment of function.

For over twenty years the writer has found the detection in the blood of the automobile spores of the *Crypta syphilitica* to be the best test for syphilis. It is used without disturbing the patient, and is useful to decide when the case is fully cured. No case is cured if the spores of the *C. syphilitica* are present.

Since surgeons have found the Gasserian ganglia invaded by fatty degeneration it is probable that some of the cases of facial neuralgia, or *tic douloureux*, are due to this cause; this is more evident when is considered the fact that angina pectoris is due to the same cause. Indeed, until there is a better clew to its real nature we had better hold on to this than be tossed about by the winds of clinical uncertainty and wavering doubt. The treatment for this degeneration is all in the line of good health for every tissue. Pain is usually due to partial paralysis; strike with a whip, and you hurt because the nerves struck are partially paralyzed; strike with an iron bar and you can paralyze the nerves so that they give no impression of pain,—a wholly lacerated nerve gives no pain. Hence in tic douloureux the interstitial and peripheral nerve changes may partially paralyze the sensory fibers and pain result; indeed, extirpation is a last resort, to be tried when all other means fail; it is effectual simply by the destruction of the nerve which suffers or makes to suffer. Better try to produce normal nutrition, so that the nerve makes no trouble because it has naught to complain of.

I believe in the autonomy of nerves as well as of organs, and that a good deal of what is

called hyperæsthesia and neuralgia is simply the outcry of the diseased suffering part for relief.

A recent* autopsy of a tuberculous case resulted in finding considerable sized masses of hard fat, granular fat bodies, and free oil in the diseased lung along with the tuberculous matter, which impels me to suggest these were simply masquerades. Certainly there is impeded and retarded function in a lung infiltrated with tubercles, which impediment is causal of fatty metabolism. The Micrographic Dictionary is quite clear on this point:

> Tubercle appears to originate most frequently from the tissue which surrounds the small arteries in every situation, constituting the lymphatic sheaths. The small cells multiply at separate centers and thus miliary nodules are produced around the vessel; and as they gradually develop they compress the vessel, and may finally occlude it. Tubercle invariably undergoes a retrogressive change; this commences in the center of the granulations, and consists in the atrophy and incomplete fatty metamorphosis of the closely crowded cellular elements, constituting what is termed caseation. The translucent and gray granulations thus become opaque and yellowish, the yellow tubercle being merely a stage of the granulation. The caseous tubercle subsequently softens, or may gradually dry up into a firm cheesy mass, which ultimately becomes calcified.†

So here fatty and tuberculous degeneration are intimately connected pathologically. Dietetically they are also connected, as carbohydrates in excess are causal of both tubercle and fat ills.

The laborious, careful, accurate, and extensive contributions of the late Doctor Joseph Jones, of New Orleans, as to the natural history of yellow fever impress one with the idea that fatty degeneration is a great clinical element of the debility, pain, prostration, and danger therein. Fattily degenerated tissues are physiologically and physically weak; indeed, they are a pathological element of great power to destroy life, for the said tissues are already half dead. Be it that the vegetation (Freire's) is a physical cause of the fatty metabolism, still it is the duty of the clinician to remove the abnormal fat transformation by aiding Nature. It is a hard enough situation to have a noxious vegetation to fight in addition to debilitated tissues; hence the close relation of dietetics to yellow fever.

From what has gone before the need is shown that clinicians consider systemic conditions more than theoretical names if they wish success to crown their labors. While one must respect old names as vehicles of thought and information, he must be guided so as to remove abnormal conditions which were unknown when our nomenclature of diseases was made up. At the same time the medical men of the past must not be dishonored, since if they "did not know everything they knew something, and knew enough to name causes of heart failure," and who made the best use of what they had. Some time medicine will be rewritten on these lines for the reason that it is foolish to fritter away opportunities of doing good by the use of defective "nouns" that masquerade the results of fatty degeneration.

Fatty degeneration is a preservative process in the living as well as the dead:

For example, the arterial muscles, the eyes, and the kidneys last longer because of this ill than otherwise they would have done under the retarded and impeded function to which they have been subjected. In this view it is not a wonder that deaths result from fatty ills. To state this differently, the idea is that from the partial paralysis, and from the impeded or retarded circulation or other function of a part, the tissues are prevented from at once dissolving entirely away by the infiltration and substitution of fat in its various forms, especially where the diathesis is gravelly and where there are calcareous deposits. Thus time is given for repentance and repair, which, if taken advantage of by the use of food which does not paralyze by its gases evolved through fermentation, Nature will then metabolize normal tissues in place of the abnormal.

The idea is in line with what happens when the body systemic gets into other troubles: If the body is burned pain follows, which calls attention to the injury. Vomiting is another function that is sometimes curative; even dogs know enough to eat grass as an emetic when they have devoured bad food. Diarrhœa is sometimes curative; indeed, it may be said in

---

* November, 1896.

† Page 785, Edition 1883.

general terms that most of our diseases in their early stages are Nature's warnings or appeals for our stopping physiological sinning.

The discovery of the fatty degeneration of tissues is probably one of the most valuable fruits of microscopic research in regard to medical science; for it has shown to us that maladies, supposed formerly to rise from too great abundance of the circulatory fluids, have really had their origin in a decayed state of the tubes and vessels in which the fluid was contained, and that the natural process of human decay, as it is called, is a morbid process of disease, probably to a certain extent as remediable or preventable as many other diseases to which man is liable.*

This quotation is introduced here to show how important the detection of this state is regarded after death. But the clinical morphologist, while not ignoring at all the work of the post-mortem detective, is rather obliged to use skill before death; since his business is the practical diagnosis and treatment of sick persons and not the study of the dead alone! The issue is a living one.

While it is a matter of deep interest to ascertain the cause of death, it is of deeper interest to find out fatty degeneration before death, and it is of the deepest interest to cure fatty degeneration. To detect fatty degeneration in the living person discover first whether there is liquid fat in a blood specimen taken from beneath the skin. To do this use a clinical or other microscope, with one-inch ocular, a one-fourth- or one-sixth-inch objective, a slide, cover, and needle or scarificator.

Never take the finger for collecting blood; take the bared wrist, previously cleaned with soap and water if need be, in the left hand in such a way that the radial edge is uppermost, and the skin made tense by the fingers and thumb of the hand. Then with needle or scarificator make a puncture. If the blood does not exude readily, as is likely to be the case when the circulation is weak and languid, squeeze the wrist hard. Sometimes a deeper puncture is needed. When a drop of the size of a common pin-head appears, touch the center of the slide to the drop, or remove with a knife, and, immediately covering, put on the stage of the microscope. If it is a case of fatty degeneration there will be observed in the field oil in globules and protoplasmic forms, varying from granules to sizes that fill almost the whole field. The idea is that in thus examining healthy blood there should be no fat in the field in the form of oil or liquid fat. To be sure, the fat comes from beneath the skin; but normal fat should be hard, more like a stearine candle. The margaric acid should be solid, embraced in the delicate walls of the fat cells under the skin. The globules should appear like little grapes in clusters quite uniform in size.

Equitable Building,
New York City.

*Micrographic Dictionary, 1873.

SERUM THERAPY NOT ALL OF RATIONAL MEDICINE.

BY W. A. TAYLOR.

The principle underlying serum therapy is a simple one, namely, self-preservation. The conscious adaptation of one's self to one's environment—the power of adjustment and readjustment without which individual life would soon disappear from the face of the earth—is only a macroscopic illustration, perhaps merely a magnified reproduction, of the attitude of every living cell of which the human body is composed. The self-preservation which we say is the first law of nature—it is so universally manifested among sentient beings—is also a characteristic of beings that are not sentient. Once the development of higher organisms from protoplasmic matter is conceded, it becomes easy to accord to every form of protoplasm the "promise and potency" if not the actual presence of the properties which in the specialized organism are absolutely necessary to existence. This does not imply that the cells of which we are composed must think, and see, and suffer pain, as we do; but they certainly do exert a selective action towards the substances which come in contact with them; and this selective action, so far as it goes, is their chief guarantee of continued existence. By what intelligence—surely not ours—do the nerves and the bones and all the other tissues of the body select from the blood what they require for rejuvenation and growth, and reject all that

is unnecessary as well as all that would prove injurious—unless, of course, the latter be of so aggressive a nature as to refuse to take No for an answer? We have a high opinion of ourselves because we are able to dodge a street car—or a bicycle—because we know enough to go under cover when it rains—but if we were not made up of cells that know as much, in their way, we should probably be still in the womb of Nature. A divine impulse is imprisoned in every atom of living matter, to defend it from destruction and to give direction to its development—the same impulse which, underlying human consciousness, gives direction to thought and emotion, to the end that the individual once evolved may be preserved.

Love of life is an ultimate unit in consciousness; the process of individual evolution did not originate it—only permitted it to emerge from below. We cannot analyze it. But assuming that it is a property not of the mind alone, but of living matter wherever found, we have tested the theory by experiment and proved it to be in certain instances correct. Without our conscious cooperation, the blood in which we are interiorly bathed does resist invasion by noxious substances. More than that: with each successful act of resistance it becomes more able to resist. Thus antitoxic power is developed, not from a negative starting point, but from the signal exercise of powers inherent in the blood-cell. Most wonderful of all, as particularly illustrated in the case of vaccination, though the enlistment of the new defensive recruits at the time of moderate danger is the work of a few days only, the reinforcement thus established remains for months and even years, keeping the subject immune against one particular disease until a long period of non-exposure gradually reduces the strength of the atomic army to its original peace footing.

From the evidence so far obtainable, it would appear that the antitoxins developed in the body (either of man or of the lower animals) are specific: the diphtheria antitoxin is powerless against tetanus, the variola antitoxin unable to defend the system against typhoid—as if the nature of the invader in each case determined the peculiar character of the defense. This is not true, however, when the antitoxin is of nucleinic origin—that is to say, when it is developed by processes of nutrition rather than attrition and resistance. Nucleinic acid multiplies the natural "defensive proteids" of the blood by direct fertilization, and as a consequence the power of the blood to resist *all kinds of disease* is enhanced, but no disease-resisting habit of a specific character is established, as when the blood is educated by the agency of gradually increasing doses of the virus of a particular disease (or germ). The validity of nuclein therapy, like that of the antitoxic specifics, has been confirmed by experimental methods.

It is a mistake, however, to suppose that because the disease-resisting power of the blood, developed by either of the methods mentioned, is available in certain instances, therefore all infectious diseases must eventually be treated by this method. The restorative powers of Nature are wonderful indeed, within the animal organism, but there is still room for the vegetable and mineral kingdoms to contribute their share.

Man himself is a product of differential calculation: what he lacks, biologically, the other departments of nature contain; if he is strong where they are weak, he is also weak where they are strong. He absorbs oxygen and exhales carbon; the plants in his garden absorb carbon and liberate oxygen. The miasm which is so debilitating and even fatal to him seems to be food for the eucalyptus which grows in his field, and supplies or conditions in some unexplained way the materials upon which the remedial cinchona flourishes.

A substance is noxious to man which finds no chemical counterpart in his blood—no affinity or repulsion by which it may be either assimilated or thrown off. Such chemical counterpart, we may be sure, exists somewhere in nature. If the conditions are such that it cannot be developed in the patient by the "immunizing" process or supplied in serum form from an animal that has been subjected to that process, perhaps it can be found by groping in the vegetable or the mineral world. Indeed, the majority of medicinal agents have been corraled in precisely this fashion—"empirically," to a certain extent, but that is not a fatal objection if only the right choice is made. The sufferer to whom

hydrargyrum or the salts of quinine minister relief is likely to regard the therapy represented by these drugs as good enough for him, whether it is called by the odious name of empiricism or by the more modern title "rational." *He* would certainly be anything but rational to reject a definite and specific remedy because nobody could explain its *modus operandi* or even give a good guess as to why it, rather than some other drug, should be applicable to his case. Instead of trying to wean him from his prejudices by experiments with anti-syphilitic or anti-malarial serum, would it not be a good idea to extend the limits of our therapeutic philosophy beyond the domain of animal reactions to disease germs and the production of serum remedies?

Too long we have lost sight of the unity of nature. After watching the animal body call out its reserves and open its recruiting stations when the enemy appears in sight, we might at least surmise that this is but a picture in miniature of the world at large. We seem to have recovered in undue haste from our astonishment at this miracle, and to have classified it among ordinary events before appropriating the meaning of it. Give the blood a chance, and it reacts to poison by elaborating an antidote. Is this so simple a thing that it needs only to be labeled and stored away in the memory? Of course we cannot understand *why* the blood acts so, but we might at least inquire whether any analogies to this action are to be found on a more open and public stage where note could be taken of the same, and therapeutic lessons learned. In point of intelligence—that is, perception of what to do in emergencies—no one would expect to see blood-cells take preeminent rank; and yet when they prove their ability to distinguish not only between friend and foe, but between one kind of foe and another kind, between tetanus, diphtheria, anthrax, and other poisons, and to provide a particular antitoxin for each, at the same time welcoming and absorbing artificial nuclein and becoming vitally stronger thereby, we forget that it is the blood that is doing all this, and call it a physiological reaction, thus covertly transferring the credit to the organism as a chemical unit—not as a living creature, else we should look for the display of an instinctive wisdom through the brain surpassing that exhibited in the blood, inasmuch as the brain is especially the organ of intelligence.

What I wish to emphasize is precisely this point. If the blood can do so well, the brain can do better. If the blood can see without eyes, the brain through all its delicate subordinate organs can see more acutely and more clearly—not simply as a group of cells reacting to external stimuli, but as living matter impregnated with the power to know (which is intelligence) and the power to rationally search for the hidden objects of knowledge (which is instinct).

Now instinct is not honored by disregarding the perceptions which come through the senses, and trusting instead a morbid prepossession, "inspiration," "revelation," or dream; for the senses are the agents of instinct, and what they report is authentic as far as it goes. But there are occasions when the senses cannot, unaided, penetrate the gloom: this must have been especially true in the infancy of the healing art. By what agency, then, did the ancient inhabitants of South America learn of the anti-malarial potency of cinchona bark, the North American Indians acquire their knowledge of the sustaining powers of the repulsive mescal, the untutored Californians of the early days unearth the inimitable cascara, bitterness and all? In short, with therapeutic instinct left out of the calculation, the bulk of the domestic remedies that form the basis of practical medicine must be accounted mere accidental discoveries—which is hardly conceivable—or special revelations to the elect medicine men and women of the past ages—which is equally difficult to believe. Speaking of pichi, which he introduced to the profession of North America, Doctor Rusby says concerning its use among the natives of its habitat:

> It has the usual origin among the aborigines—the account of the immortal and ubiquitous old woman and her patient who had been "given up by all the physicians," with a fair average of thrilling tales of impossible cures.

Certainly the "old women" to whom so many remedies are traceable were not guided by any knowledge of anatomy, physiology, or therapeutic probability in making their discoveries. They may have been, how-

ever, and doubtless were, guided by instinct —the voice crying in the wilderness and proclaiming the presence there of correspondences between the physical vulnerability of man and the remedial agencies of nature.

Not only are the existence, sustenance, comfort and intellectual and moral development of man anticipated and provided for in the respirable air, the flourishing vegetation, the mineral treasures of the earth, and the necessary advantages of intelligence and virtue in the social communities predicted and made possible by all these prearrangements; but also, somewhere in nature may be found a salve for every wound, an antidote for every poison to which the race of man is unavoidably exposed.

Now we are treading on debatable ground; yet it is not unreasonable to assume that, just as natural selection and accidental variation of type have failed to account for the development of species—the philosopher feeling at every step of his researches the necessity of a positive impulse in a given direction not only to take advantage of selection and variation, but to produce both—so here we cannot rest content with the theory that the materia medica is the result of mere experiment: we must have a starting point. Accidental discoveries, no doubt, have occurred; but we are quite sure the "old women" have often received a "tip" from Nature herself in her communicative moods; they have been *directed* to try this rather than that herb—a monition which they have ascribed to sinister or divine agency, according to the degree of their general enlightenment. Yet there was nothing so very *outré* about it. Every discovery was at one time, in the mind of some one, a suggestion, coming he knew not whence, unless he assumed, as we may, the existence of an intimate relationship between one part of nature and every other part, corresponding to the absolute homogeneity which at one time prevailed, and in harmony with which the cry of need uttered by the injured tissues is heard by that molecular group—be it mineral, vegetable, or animal—which at one time constituted with those tissues one invulnerable unit. I employ the word "heard" in a chemical sense; more scientifically it should be "apprehended;" a still more scientific statement would be that when the integrity of the living tissues is impaired, instantly the status of all possible remedial substances is disturbed, and a tendency to reestablish the balance of health would appear, were there no mechanical barriers between the patient and the agent.* But there *are* mechanical barriers, and these are insuperable except by the will of some individual made aware of the necessity of overcoming or removing them.

May we not, without superstition, believe that to a mind properly attuned, itself a product of the same forces that produced the remedial drug, a suggestion of the value of that drug may be communicated, in an undertone, just as the whereabouts of a lost ring for which we are groping in the dark is revealed to us when we hold the mental faculties in an attitude of complete suspense and impressibility? If so, we have a rational origin for so-called empirical remedies, and need not fear that everything permanent in medicine is to be enrolled under the banner of serums and antitoxins.

But the instincts of man will be doubted by many: the lower animals, being freer from the disturbing element of ratiocination, are more acceptable prophets. We now no longer doubt that the lower animals are susceptible to disease; yet the rarity with which they succumb to this form of assault confirms the observations of naturalists that they have access to remedial agencies, to which they resort under direction of an instinct analogous to that by which they provide against future changes of climate (which they cannot reason out) and the dangers that encompass their as yet unborn offspring. A familiar example of this instinctive medical lore is presented in the habit among canines of treating themselves by chewing couch-grass, or, as it is sometimes called, "dog-grass"—*Triticum repens*—a panacea for indigestion

---

*James Martineau quotes a statement of Burdach regarding the insects which effect fructification of certain plants: "This is no mechanical botch, no makeshift as if Nature, having committed a blunder yesterday in forming plants, tried to-day to make the insect mend it; rather, it is a *deeply implanted sympathy between the vegetable and animal worlds*. It was only right that both [plant and insect], children of one mother, should subsist with and through each other."—W. A. T.

and the ordinary ailments which dog flesh is heir to. This plant is not the same to dogs that catnep is to cats: its effect is strictly therapeutic, inducing emesis and relieving constipation, while that of catnep is merely exhilarating. Porteous, a Scottish author who has noted the habits of dogs with respect to what he calls *Triticum caninum*, states that cattle, too, have some instinctive wisdom of the same kind: when they are feeling "out of sorts" they select the roots of hemlock as their medicine. Among medical practitioners a derivative of hemlock is held in high esteem as an anti-spasmodic, and no doubt the cows find their hemlock roots soothing and helpful.

In the very nature of the case it is impossible to get comprehensive data on this subject, as the animals cannot be catechized when the first symptoms of illness arise, and the observer must generally be content with the knowledge that the dietetic and other habits of the lower orders of creation are consistent with, and in all probability conservative of, good health; those tendencies to excess which are not checked by satiety or the "horse sense" of the animal are doubtless antidoted by elements that enter into the ordinary bill of fare, or by procedures instinctively suggested, as in the case of the cow and the dog. But when the danger to which the animal is exposed is such as to be noted by observers and to demand prompt action in order that life may be preserved, investigators have obtained a considerable amount of evidence. Speaking of the Indian mongoose, Miss Gordon-Cumming says: "Whenever in its battles with serpents it receives a wound, it at once retreats, goes in search of the antidote (*Mimosa octandra*), and, having found and devoured it, returns to the charge, and generally carries the day, seeming none the worse for its bite." *Science Gossip* has reported the case of a toad stung or bitten by a spider, repeatedly resorting to the leaves of *Plantago major*, and surviving in the conflict until some one removed the plant out of its reach, when it soon succumbed to the spider's attacks. Seventeen years ago Doctor John Penn Curry, of New York, wrote the following remarkable narrative, which appeared in the columns of the *Therapeutic Gazette:*

One morning, during an extended survey of Panama, as I was sitting in front of my tent watching the movements of a large rattlesnake about thirty feet in front of me, I saw the reptile strike with its fang a bird which had alighted on a twig, about three feet from the surface of the ground, knocking it completely over. It struck the bird a second time, before I succeeded in killing the snake. It had fourteen rattles, which I still preserve.

Notwithstanding the bird (a species of buzzard) had been knocked down by the force of the onslaught, it recovered strength enough to fly off about fifty yards, and peck away for a few seconds at a large bush, resembling in appearance one of our American quince trees, and then winged its way into the upper air, apparently well, and not the least affected by the sting.

I called the attention of one of my camp attendants, a native of Panama, to the incident. He looked at me in astonishment and laughed at my ignorance and innocence in not knowing the antidote for the sting of venomous reptiles and insects.

"Me no caree for rattlesnake, moccasin, copperhead, lizard, or tarantula bite no more than a fly bite. The 'cedron bean' kill the poison in five minutes."

To prove his assertion, which we all doubted, that night he trapped a large-sized rattlesnake, and the next morning in the presence of the whole camp allowed it to strike its fang several times at the forefinger of his left hand before he killed it.

The punctures were about the size of the head of a darning needle. A deep purple inflammation rapidly set in and began to extend over the hand like St. Anthony's fire. Some one suggested whiskey, but "Tony," pulling from his pocket a cedron bean about the size and appearance of a horse chestnut, began to nibble away at it, and with the spittle saturated the wound. Then with some scrapings from the bean and with a gill of hot water he made a tea and drank it off. Within half an hour, certainly, all perceptible external inflammation had subsided, and, with the exception of a little nausea which he had experienced, not the slightest effect of the sting two hours after was perceptible.

Other experiments only corroborated his statement. I carried with me a peck of the beans to San Francisco, and repeated experiments, at my suggestion, were made by Professor Lanzwert, a German chemist and physician of high standing, and always with great success.

This story is not reproduced in order to advertise cedron as an infallible antidote to serpent venom, for it probably is no such thing; neither is anti-diphtheritic serum an infallible antidote to diphtheria. Doubtless many cases of snake-bite, treated promptly, have been relieved by means of cedron, and this is all that is necessary to establish the

instinctive sagacity of the "buzzard" that resorted to it in his hour of need.

This example of therapeutic instinct in the bird is paralleled, so the same author says, by the conduct of the Central American dogs, who, to avoid the development of rabies, periodically partake of the cedron bean, just as a cat does of wild catnep. "The natives," he says, "assert that not a single fatal result from hydrophobia has ever been known among them, though the whole country in the tropics seems to be overrun with dogs."

Now may we not conduct the campaign against serpent venom and canine virus along two lines, rather than confine it to the domain of serum therapy? All compounds elaborated from circulating blood are more or less unstable. To be efficient they need to be not only pure and free from incidental noxa, but comparatively fresh. Only eternal vigilance can secure these desiderata; and even then how much have we improved upon the antitoxins of the vegetable world? Cedron is at least worth trying while the Pasteur Institute is perfecting its anti-rabic material and while the incompleteness of rapid transit leaves so many of us hopelessly distant from any of the substations where venomous bites are treated by inoculation methods. A number of reports have been made by medical men which would seem to prove that cedron promptly and effectually checks the process of blood-destruction which ensues from poisonous bites or from contused wounds. In regard to "hydrophobia," it is to be regretted that more complete details, excluding the possibility of a mistaken diagnosis, are not always furnished; still, enough testimony of a professional kind has been offered to establish the fact that this remedy exerts a decided sedative and anti-spasmodic influence in cases of apparently genuine rabies.

The upshot of the whole discussion is this: Rational therapeutics is that for which an intelligent *reason* can be given. Serum therapy comes under this head. So do thyreoid therapy and nuclein therapy. But the standard resources, the "household gods," of medicine, whose most manifest recommendation is that they accomplish what is expected of them, without yielding a reason, are nevertheless in many instances as "rational" as any: they are rooted in the rationalism which asserts a common nature for the animal, vegetable and mineral kingdoms, and an intimate sympathy between the members of these three departments of nature which may, in rare moments, issue in pregnant therapeutic divination, so that the right remedy shall be chosen, as it were, by instinct. With these vague beginnings of discovery, however, we generally have nothing to do but to test their validity in the crucible of experience. If the selection is in any case practically serviceable, we may be sure it is rational, even though we do not understand the *rationale*.

Detroit, Michigan.

SPIDERS AND THEIR WAYS.

There are as marked differences in habits, tastes, and characters among spiders as among human beings. Some prefer always living in houses or cellars, not seeming to care for fresh air or out-of-door exercise,—Mr. Jesse tells of two spiders that lived for thirteen years in opposite corners of a drawer which was used for soap and candles. Others delight in making burrows in the earth, in dwelling under stones or behind the loose bark on trees; others, again, live under water. Many never leave their webs, but patiently wait, hoping some insect will become entangled in the snares they have set. Others dash about and seize upon every luckless insect that crosses their path. The most adventurous of all are those that sail out into the world on one of their own little threads. Darwin tells of encountering thousands of these many leagues from land off the coast of South America. He says: "The little aëronaut, as soon as it arrived on board, was very active, running about, sometimes letting itself fall, then reascending the same thread. It could run with facility on the surface of the water."

In the bright autumn weather, one may sometimes see small spiders ascend to the tops of trees, fences, and other high objects, rise on their toes, turn the spinners upward, throw out a quantity of silk, and sail away. They grasp the silken thread with their feet and seem to be enjoying themselves as much as the birds and butterflies. — MARGARET LEIGHTON, in *Popular Science Monthly*.

THE MEDICAL AGE.
A SEMI-MONTHLY REVIEW OF MEDICINE.

—PUBLISHED BY—
GEO. S. DAVIS, Medical Publisher, Box 470.

All communications regarding papers, reports, etc., should be addressed to the Editor of the MEDICAL AGE, P. O. Box 470, Detroit, Mich.
Matters relating to advertising space, etc., to be addressed to the publisher, Geo. S. Davis, Box 470, Detroit, Mich.
The editor cannot engage to return rejected manuscripts or to correspond with the writers thereof, unless such are accompanied by sufficient postage.

DETROIT, MICH., JULY 10th, 1897.

Editorial.

THE PLAGUE IN BOMBAY.*

From a distance Bombay looks like anything but a plague-stricken city, it must be confessed. Life and not death seems to have its home here. But one cannot be long on shore without feeling the depression of a place over which the angel of destruction is hovering. Everywhere I saw evidences of his presence. The closed shops, the half-deserted streets, the absence of wedding and festive processions, which usually at this time of year make Bombay a perfect kaleidoscope of life and color, all proclaim that something is wrong.

But there are more tangible signs of pestilence. Here is a hovel from whose roof all the tiles have been torn off to let in the blessed, purifying sunlight upon some dark, disease-breeding hole. In front of a dozen houses in the next street through which we pass are little disinfecting fires burning, showing that the plague has come near that dwelling and perhaps claimed half its occupants for its own. Hundreds of these little sidewalk fires are burning all over the city, pointing out the infected houses to the passer-by. They are built of short sticks of hard wood, on which is sprinkled an abundant supply of sulphur. Of what value this can be, only the city fathers of Bombay know. The fumes cannot reach the houses with any degree of effectiveness, and, though they may disinfect the air to a slight degree and thus benefit the passing traveler, the benefit must be nearly infinitesimal.

But other and more effective means are employed. Whenever an infected house is discovered it is visited by a squad of municipal officers; the furniture is cleared out, the bedding is burned, and the interior is thoroughly whitewashed. In many cases, too, the tiles are torn off the roof to let in the purifying sun.

One of the most effective measures yet devised is the cutting off of the water-supply from the poorer houses of the infected district. In the dark and noisesome passageways where hundreds of thousands of these people live, in abodes little bigger than underground drains, the free supply of city water has been a bane rather than a boon. The taps were always running or dripping, and earthen floors were always damp and soaked with filth, forming a very hot-bed for disease. Of course the people objected to the cutting off of their water-supply, and deep and loud were the grunts and growls against this interference with their rights, even though they had only to go out into the street to draw water from the ever-flowing pipes. But the authorities persisted, and this fruitful source of disease has been removed.

Another plan, tried to a larger extent, and to a degree successful, is the segregation of plague-stricken households. But there is fierce and bitter opposition on the part of many of the natives to the idea of segregation. All sorts of stories are rife among them as to the object of the authorities. Some even think that their hearts will be plucked out and made into charms by which the foreign doctors hope to conjure away the plague.

Another scheme has been proposed, but as yet has found very little favor: it is to draw a cordon around the infected city, to station troops all along the line, and to allow no one from Bombay to go beyond this boundary. It is argued, and with a good deal of reason, that this would only intensify the pestilence in the spots already infected, would create an uncontrollable panic among those who could not get away, and would almost doom the city to destruction.

The causes to which the more ignorant of the population ascribe the plague are various; in fact, almost every cause except the right one, the filth and unsanitary condition of their city, is assigned. Some ascribe it to the ma-

*Adapted from *Lippincott's Magazine* by permission of the J. B. Lippincott Company.

levolence of their deities, and others to the unfortunate conjunction of the stars, while still others, most curiously, have laid the burden upon the aged shoulders of Queen Victoria. A few months ago her beautiful Jubilee statue was defaced by some miscreants with a liberal coating of tar. This outrage was deplored by all well-meaning people, and was denounced in the native as well as in the English papers. But many of the people believe that the apologies rendered at the time were not sufficient, and that now the old queen is visiting her wrath upon the city that defiled her image.

A friend of mine engaged in zenana work was refused admission one day by some of the women who before had always heartily welcomed her. When she came to learn the cause, she found that it was because she was supposed to be a spy of the English government in the service of the queen, who had come to ferret out the misdemeanors of the people and to punish with the plague any murmuring against her gentle sway.

It can readily be imagined that business is suffering terribly and that many industries are almost at a standstill. Master-workmen cannot induce laborers to enter their employ. Clothing houses and shoemakers' shops are deserted by the workmen. Many factories have had to close their doors, and in every branch of life the effect of the pestilence is felt. The government has been compelled to issue very stringent orders concerning the civil servants, threatening them with expulsion and with loss of pension if they yield to the prevailing panic and leave the city. One of the results of the plague is strange indeed. Litigation has come almost to a standstill. Case after case is called, we are told, only to disclose the fact that parties or witnesses are not forthcoming. It would appear that the judges are sitting rather for the sake of setting an example than for the sake of the work they can get through. But unless matters mend, says *The Pioneer*, they will absolutely be at the end of their business and the sitting will be closed by the force of circumstances.

In spite of all efforts and precautions the plague has increased in the number of its victims and in the mortality of those attacked, and the authorities seem utterly unable to cope with the destroyer. Medical science is baffled, and sanitary experts appear to be of little avail.

It is not to be wondered at that all sorts of quacks and nostrum-venders should come to the fore at such a time as this, and many of the remedies are of an unearthly and immaterial sort. Fakirs promise that if due reverence is paid to the divinities they worship, the plague will soon disappear, and grave announcements to this effect are frequently made in the daily papers. Not only the native papers but the English journals contain many strange announcements in these days. Here is one copied *verbatim* from the leading Bombay daily, printed therein without comment or reflection of any kind:

"Pandit Swaroopdas telegraphs to us from Shikarpore: I undertake to free Bombay of its plague, if goat-flesh, fish, and liquor is supplied to me for sacrificial purposes in quantities sufficient to equal, approximately, a day's consumption in Bombay. Further condition is that no slaughter of larger animals should take place on the day the sacrifice is offered. I am ready to leave for Bombay on invitation. I require neither remuneration nor traveling expenses."

Many other proposals to pacify the enraged deities have been published, but, so far as I know, the city authorities have not seen fit to adopt these means to secure immunity from the plague.

It can be well imagined that the signs of death are numerous in every direction. On the day of my arrival in Bombay no less than ten funerals passed the house of the friend with whom I was staying, and it was mournful in the extreme to hear the wails of the afflicted, and the still more dreadful noises of the native musicians who often accompany a funeral train. Sometimes these processions bear the poor body to its last resting-place in the middle of the night, and it is weird and melancholy in the last degree to awake at two o'clock in the morning, perhaps, to the horrid din of a funeral procession, and to hear the monotonous refrain of the bearers, "Ram, Ram, Sachha!" ("Ram is true!") repeated over and over and over again.

If a Mohammedan is being borne to his last resting-place, the unchanging cry of the mourners and the bearers is, "There is one God, and Mohammed is his prophet."

Busy indeed are these days at the various burning-ghats of the city. As we drove, one evening, on one of the principal streets behind a high wall we could see a brilliant flame shooting upward and illumining the sky above and the blank wall beyond. This was one of the burning-ghats where the Hindu dead are cremated, and, looking through the open doorway, we could see scores of lurid fires licking up the bodies placed between the glowing logs. The sticks of wood which are used for cremation purposes are about six feet long. Of these a platform is built some four feet broad and two feet high. Upon this platform the dead body is placed; other logs are piled upon it; and pieces of sandalwood and other fragrant woods are added to the pile. Sacred passages from holy books are read by the officiating priests; the nearest relative then walks three times round the funeral pile, and applies the torch, and in about two hours nothing but a handful of ashes tells of the father or mother or child that was borne within the ghat. More than a hundred bodies, I was assured, were waiting for cremation at one of these burning-ghats in a single day.

The vultures, too, in Bombay are particularly busy during this dreadful epidemic. As is well known, the Parsees are a numerous and influential sect in Bombay. They are sometimes called "the Yankees of the Orient," because of their ability to get on in the world. They neither bury their dead nor burn them, since both fire and earth are sacred to their religion. So they give them to the vultures by exposing them on the Towers of Silence. It is a most gruesome and melancholy spectacle to see these horrid birds of prey awaiting their victims. The towers, large structures of stone and cement, are on Malabar Hill, one of the most beautiful parts of Bombay, and are approached by winding roads through lovely gardens.

These towers are about ninety feet in diameter and fifteen or twenty feet high. On the edge of the towers, often sitting as closely together as they can be packed, are the vultures, waiting with horrid impatience for the next victim that shall be given to their ravenous beaks and claws. Up the long winding road come the mourners, chanting funeral prayers; then follows a man leading a white dog, the emblem of faithfulness; then come a number of priests and the relatives of the family, two and two, holding a white handkerchief between them, which indicates that a bond of sympathy draws them together. When they reach the house of prayer the mourners enter and engage in prayer while the corpse is borne into the Tower of Silence. The body is exposed naked on a platform erected on the inside, which cannot be seen by spectators without. The moment the bearers withdraw, the hungry vultures swoop down upon the corpse, and in ten minutes nothing but the skeleton remains, picked clean of every particle of flesh. For two or three weeks the skeleton is allowed to remain there, when it is thrown into a common pit beneath, with tens of thousands of its nameless companions. Some of these are of high degree, and some of low, but death, the great Leveller, makes no distinction in the Parsee Tower of Silence.

The following grim paragraph concerning the vultures and their dreadful business I have just cut from a Bombay paper. It shows as nothing else can do how soon people will get used to the direst calamities and the most gruesome details, so that they become a matter of commonplace and everyday comment:

"On inquiries regarding vultures and their ability to consume the twelve or thirteen bodies of Parsees taken on an average to the Towers of Silence daily, the Secretary to the Parsee Panchayet has informed the representative of a Bombay paper that the number of vultures has considerably increased of late, and that there is not any truth in the statement that bodies remain unconsumed and are thrown over into the big pit in the middle of the Towers. The fact was, he stated, that in ordinary times the flock of vultures did not subsist on the three or four bodies that were brought in, but soared away to their chief roosting-place and gorged on animal and other food obtainable there. Now they have, by instinct, flocked to the Towers of Silence, and no complaint about their being slack in the work of despatching the dead bodies has been made."

One of the most pathetic sights during these terrible days in Bombay is that of the thousands of poor people who are attempting

to flee the city. On the day I left Bombay by the Great Indian Peninsula Route, twelve thousand people, by two lines of road alone, had joined the panic-stricken exodus. The railway stations and all the streets and open spaces in the vicinity were crowded with squatting figures in white cloths, waiting for a chance to board a third-class railway compartment and thus leave the infected precincts.

Huddled together in all sorts of heaps of humanity, in the dead of night as well as in the broad glare of day, were these waiting, frightened throngs. The trains were running in two sections, and all the third-class compartments were crowded to suffocation. Thousands of others left by sea or by the carriage roads, and already it is thought that nearly half the population has shaken the dust of Bombay from its feet and turned its face countryward. The exodus is estimated all the way from two hundred thousand to four hundred thousand, and probably the latter figures are nearer correct. Not all those who try to escape reach the promised land safely, for almost every day, it is said, some corpses are taken out of the trains, and others live only long enough to reach Poonah or Ahmednuggur or some other port of hoped-for safety, and there yield to the destroyer whose seeds of death have been implanted in their systems.

Altogether, the sight of a plague-stricken city is sad beyond expression, and the sympathy of the civilized world has not been expended in vain upon the "Eye of India," so sadly and grievously afflicted.—FRANCIS E. CLARK.

RABIES.

Elsewhere we present the special "Report on Hydrophobia," to the Medical Society of Pennsylvania, by Doctor Charles W. Dulles, a gentleman who has perhaps devoted more study to this subject than any one man in North America.

Apropos of his remarks, attention may be called to the fact that recently seven men supposed to have been bitten by a rabid dog were treated at the Pasteur Institute, Paris, and after twenty days were discharged as cured; but not long afterwards one of the number observed the wound in his hand, inflicted by the dog, had broken out again; at the same time he complained of general illness, pains in left arm, shoulder, etc. He returned to Paris intending to be again treated at the Institute, but on the night of his arrival was seized with convulsions, removed to the hospital, and there died, the malady being pronounced rabies,—this on the authority of *The Lancet* (London).

Another statement coming from France is so utterly absurd that it is worthy of being chronicled. It is to the effect a customs official in order to ascertain the contents of a basket passed his hand underneath the cover and when he withdrew it found it covered with foam and hairs. The basket contained the dead body of a dog on its way to a veterinary surgeon for examination. This individual placed himself under treatment at the Pasteur Institute, and is numbered among the cures, though it is manifest even to the most ignorant tryo that there never was any cause for treatment.

A notable fact in connection with Doctor Dulles' article and the foregoing is, that many patients die as the direct result of treatment received at these institutes. In other words, they are affected by nothing worse than their fears until introduced to the institute, where they contract a fatal form of sepsis as the result of the therapeusis undergone.

MATERNAL IMPRESSION.

Kocher makes a strange announcement in discussing cretinism, that it is "often psychic rather than hereditary." He declares "sound and strong parents who have lived far from regions in which cretinism is endemic, and have there begotten normal children," after moving into a cretin district "have begotten one or more cretins." Also that after such parents have returned to their former place of residence, or to localities where cretinism does not exist, they again begot healthy children.

He advances various theories in explanation of the foregoing, the most reasonable of which appears to be that the same influences which lead to goitre are a cause of cretinism, or that goitre is a stepping-stone to cretinism, and that cretinism always exists where goitre is endemic. He also adds that previously

healthy parents, begetting healthy children, on removal to a cretin district begot cretin children and quickly (the parents) gave evidence of goitre. But he does not claim that this latter is a universal fact.

If, then, his contentions are to be relied upon—and he claims to have examined over seventy thousand children—only one conclusion seems to be permissible, viz., that the impress of a cretin neighborhood, and of association with goitreous and cretin-producing people, psychically induce cretins in the family of the immigrant.

It is evident considerable more research will be required into both goitre and cretinism in order to clear up their ætiology and pathology.

EDITORIAL NOTES.

Osteopathy in Kentucky.—

The State Board of Health, which is now the censor of medical practise in the Blue-grass State, has declared war against the so-called osteopaths. A test case has been started against one "Doctor" Byron C. Axtell, charging him with illegally practising surgery. It is to be hoped there is enough law in Kentucky, and dignity in the courts, to effectually squelch this most pernicious, even dangerous, form of quackery.

American Journal of Insanity.—

This periodical will henceforth be published in Baltimore by the Johns Hopkins Press, and likewise be edited by Henry M. Hurd and E. N. Brush of Baltimore, G. A. Blumer of Utica, New York, and J. M. Mosher of Albany, New York.

The Pennsylvania Medical Journal.—

This is the new title assumed by the *Pittsburg Medical Review* on becoming the official organ of the Medical Society of the State of Pennsylvania. With the June number also is begun a new volume.

Osteopathy in Illinois.—

The bill intended to legalize this form of charlatanism was very justly vetoed by the governor.

Items and News.

Dietetics.—

We used to have old-fashioned things, like hominy and greens,
We used to have just common soup, made out of pork and beans;
But now it's *bouillon*, *consomme*, and things made from a book,
And *Pot au Feu* and *Julienne* since my daughter's learned to cook.

We used to have a piece of beef—just ordinary meat,
And pickled pig's-feet, spare ribs too, and other things to eat;
While now it's *fillet* with *ragout*, and leg of mutton *braised*,
And macaroni *au gratin*, and sheep's head *Hollandaised;*
Escollaps a la Versailles—a la this and *a la* that—
And sweetbread *a la Dieppoise*, its enough to kill a cat!
But while I suffer deeply, I invariably look
As if I were delighted, 'cause my daughter's learned to cook.

We have a lot of salad things, with dressing *mayonnaise;*
In place of oysters, Blue Points, fricaseed a dozen ways,
And orange Roley Poley, float, and peach *meringue*, alas—
Enough to wreck a stomach that is made of plated brass!
The good old things have passed away, in silent, sad retreat;
We've lots of highfalutin' things, but nothing much to eat.
And while I never say a word, and always pleasant look,
I have had sore dispepsy since my daughter's learned to cook.

—*Southwestern Medical Record.*

The Last Cure for Cancer.—

It is certainly not for the want of trying that quacks and others have failed to discover a "cure" for cancer. Every now and then a new one is introduced with a flourish of trumpets, and ardent newspaper correspondents leave no stone unturned in their efforts to give publicity to the "discovery." Something especially new in this regard has just been reported from Italy, the home of the late Count Mattei—whose cancer bubble-cure no one ever hears of now. The new cure in question is known as the bronze medal cure. A young lady, the daughter of a well known lawyer, died recently of malignant disease, and at the post-mortem examination her stomach was found to contain a collection of bronze medals of a Madonna, said to be locally celebrated for powers of curing cancer. The dose was one medal a day, and this treatment (?) had been carried out for a week before her death on the ad-

vice, it is alleged, of her confessor. These facts do not call for comment. The case would lose much of its force were any attempt made to enlarge upon its extraordinary features.—*Medical Press and Circular.*

The Vitality of the Turks.—

The correspondent of the *London Times* is impressed with the eagerness of the Turks to fight and with the difficulty of killing them. He mentions one man whose abdomen was penetrated by a bullet, and who not only kept his place in the ranks till the battle ended, but marched ten miles afterwards. Another man with three wounds—two in the legs and one in the shoulder—continued on duty twenty-four hours until an officer noticed his condition and sent him to a hospital. "Sometimes," says the *Lancet*, "our alcoholism has been associated with our daring and our endurance as cause and effect, but here are qualities of the same sort in a non-alcoholic nation. Our contemporary's correspondent remarks further on the rapidity with which wounds heal, and says that medical men attribute it to the abstemiousness of the Turks. Here we should scarcely be able to match the race whose soldiers are ill-clad, ill-fed, and who take no alcoholic stimulants."—*Boston Medical and Surgical Journal.*

Promiscuous Use of Handkerchiefs.—

One of the commonest maladies is "cold in the head," or, as it is technically called, "coryza." It is notoriously infectious, and the means of communication is the discharge from the nostrils. I am satisfied from repeated observation that this troublesome affection often spreads through a family of children and then through an entire household through the promiscuous use of pocket-handkerchiefs. A little child comes to the nurse with the request, "Blow my nose." This is carelessly or thoughtlessly done with the parent's or attendant's pocket-handkerchief, which has become infected and spreads the attack. In other cases the soiled pocket-handkerchief is allowed to dry without disinfection, and the dried discharge from the diseased mucous membrane of the nose is then diffused through the air, spreading the malady just as measles is spread.—Moore, in Proceedings of Dublin Sanitary Association.

Surgical Technique.—

Attention to the details of modern technique may make one forget that the old masters did great operations even if they had suppuration, and were often successful in them because they remembered that surgery means handicraft and they took mechanical means to attain the ends that mechanical means alone can attain; so that besides the element of shock being partly eradicated by checking bleeding, they had what is essential to success—a clear view of the field of operation and a clear idea of what they wanted to accomplish.—R. W. Johnson.

Why Fashions in Surgery Change.—

The only way an operation can be estimated justly is to ascertain its remote results. It would matter very little if an operation had no primary mortality at all if it left the majority of its subjects maimed, halt, or insane at the end of two years. The absence of injury in secondary results is the cause of so much change of fashion in surgery, to say nothing of medicine.—Lawson Tait.

Diet.—

A full-grown person of middle size, and doing a medium amount of work, requires on an average daily about three pounds of solid nutritious material. Out of this three pounds about one-third should be taken from the animal world and two-thirds from the vegetable kingdom.—*Indian Medical Record.*

Birthday of a Centenarian.—

Miss Hattie L. Purdy, of Derby, Connecticut, celebrated her hundredth birthday on Tuesday, June 15th. At the age of eighteen she lost her lover and vowed she would never wed, which is assigned as a reason for her being still a spinster.

What For!—

Before the operation.—"Er—I suppose, Doctor, there is some chance of saving him?"

"Absolutely none; he will die whether operated upon or not."

"Well, what are you doing it for then?"

"For $350."—*Life.*

Mississippi Valley Medical Association.—

The next meeting of this organization will be held in Louisville, Kentucky, October 5th, 6th, 7th, and 8th. All railroads will offer reduced rates. The Secretary is Doctor H. W. Loeb, 3559 Olive street, St. Louis.

To Remove Blood-stains.—

Soak in a twenty-five-per-cent. solution of potassium iodide.

Book Reviews.

TRANSACTIONS OF THE AMERICAN MICROSCOPICAL SOCIETY. Volume XVIII. Paper; 8vo; pp. 420. A. T. Brown, Buffalo.

Besides the routine work of the association this volume embodies some most excellent papers. We have not room to number all the contributions, but those of the greatest moment appear to be: "Note on Comparative Histology of the Blood and Muscle," by Edith J. Claypole; "The Physician and the Microscope," by Doctor A. A. Young; "The Peritoneal Epithelia of Some Amphibia," by Isabel Green; "Photo-micrography," by Thomas J. Bray; "Systematic Photo-micrography," by James B. Sheers; "Photo-micrography *versus* Micro-photography," by Clifford Mercier; "Acetylene Gas in Photo-micrography," by W. H. Walmsley; "Zoophylly *versus* Homophylly," by Pierre A. Fisk; "The Rotifera of Sandusky Bay," by D. S. Kellicott; "Requisite of a Pure Water Supply," by Doctor W. C. Krauss; "Water Supply for Small Towns," by M. A. Verder; "Increasing Pollution of Municipal Water Supplies," by F. J. Thornbury; "The Apparent Structures of the Scales of *Seira Buskii* in Relation to the Scales of *Lepidocryrlis curvicollis*," by E. L. Maddox (Southampton, England); "The Red Blood Corpuscles in Legal Medicine," by Doctor M. C. White; "Yeasts and their Relations to Malignant Tumors," by Doctor A. R. Defendorf; "Brain of the Embryo of Soft-Shelled Turtle," by Susanna P. Gage.

The illustrations are of a very high order, and the volume as a whole most interesting and instructive.

TRANSACTIONS OF THE ROYAL ACADEMY OF MEDICINE IN IRELAND. Volume XIV, 1894. Edited by William Thompson, M.A., F.R.C.S. Fannin & Co. (Limited), Dublin; John Wright & Co., Bristol.

This is the most valuable series of transactions that comes to our table. We find no less than thirteen valuable papers in the section of Medicine, ten in that of Surgery, eleven in Obstetrics, nine in Pathology, three in State Medicine, and four in Anatomy and Physiology, and such eminent practitioners are represented as More, Cameron, Burgess, M'Hugh, Day, Little, Scott, Bernard, Bewley, Boyd, Finny, O'Carroll, Craig, Parsons, Stoker, Wheeler, Wood, Pearson, Swan, Cox, Thompson, Heuston, Smith, Kinkead, Croly, Kidd, Tweedy, Glenn, Wilson, Purefoy, Bennett, McWeeney, Ball, Symes, Nixon, Flinn, Birmingham, and Symington. It is impossible to give a list of all the topics treated, but among the most notable are: "An Unusual Rash in Enteric Fever;" "Fatal Case of Chorea;" "Defective Metabolism in its Relation to Gout;" "Colotomy and Conditions Requiring Operation;" "Tubercular Hip-Joint Disease;" "New Method for Localizing Brain Lesions;" "Misplaced and Rotating Spleen, Simulating Ovarian Tumor;" "Suppuration in an Ovary;" "Traumatic Rupture of the Heart not Immediately Fatal;" "Myxoma of Bladder;" "Thrombosis and Endarteritis of the Coronary Artery;" "Chronic Rheumatic Bursitis;" "Asymmetry of the Sternum;" "Dissection of Double Knock-Knee."

LIFE IN DIXIE DURING THE WAR. By Mary A. H. Gay. Cloth; 12mo; pp. 410. Price, $1.25. Charles Byrd, Atlanta, Georgia.

Although bearing the imprint of an Atlanta firm the volume is sold by its author, whose address is Decatur, Georgia. This is a narrative of actual experiences between the years 1861 and 1865. The author, as may be supposed, was an eager Southern partisan, and the book would lead us to believe that she is not altogether reconstructed. However, one requires to be put in the place of the author to appreciate the troublous times through which she passed, and the depth of feeling which was inculcated. The volume is well written, full of thrilling incidents, and gives a view of life in the Confederacy such as has yet accrued to no other volume. It is of course local in both the descriptions and subjects. People at the North have no idea of the trials and tribulations and the sacrifices which the women of the South underwent during the late war. As a whole, though we cannot perhaps agree with all the political ideas put forth by Miss Gay, the perusal of her book at once challenges our sympathy and leads one to feel that the great civil war was a mistake on both sides and the direct outcome of that miserable political garbling and chicanery which is the curse of every country.

The volume is one that should be perused by every individual who has any interest in obtaining an insight to both sides of the greatest conflict of the century.

DISORDERS OF DIGESTION IN INFANCY AND CHILDHOOD. By W. Soltau Fenwick, M.D., B.S. (Lond.). Cloth; 8vo; pp. 378.

This volume is the outcome of long studies upon the subject of dyspepsia in children, and especially the result of the study of five thousand cases of disordered digestion that came under notice in Evelina Hospital. The first five chapters deal with the physiology of digestion in early life, and the various diseases which are apt to arise from neglect of those fundamental laws which should regulate the diet and hygiene of infancy. The remainder of the volume is taken up with a description of diseases of the stomach which are encountered during the period of childhood. Above all there is an appendix which includes a short account of the methods employed in chemical examinations of the contents of the stomach, and certain prescriptions and formulæ to which special reference is made in the body of the text. The book as a whole is most concise, practical, and original, and is one of the most valuable contributions to medical literature of the nineteenth century.

PRINCE SCHAMYL'S WOOING. By Richard Henry Savage. Paper; 16mo; pp. 346. Price, 25 cents. Rand, McNally & Co., Chicago and New York.

This is No. 2 of McNally's new Oriental Library, published under date of April 15th Prince Schamyl is the son of the old Circassian hero of the same name, and the tale deals with the courtship of a fair maiden, who is of mixed Circassian and Georgian extraction. The plot deals with the times of the last Russo-Turkish war, the chief scenes being among the mountains and valleys of Circassia and that portion of Asia Minor lying between the Black Sea and frontier of Persia. It is a delightful tale and evidences the author has studied both racial characteristics and local topography. A strange error, however, occurs wherein the English fleet at Beiska Bay is designated by its "blood-red flags." The ensign of the Royal Navy is noted for its *white* ground.

THE STORY OF THE FARALLONES. By C. Barlow and H. R. Taylor. Paper; square 24mo; pp. 40. Price, 50 cents. H. R. Taylor, Alameda, California.

This little volume, nearly every page of which is illustrated with a beautiful half-tone, is descriptive of certain islands well known to ornithologists, off the coast of California, and which have a most remarkable bird population in the way of murres, puffins, cormorants, gulls, etc.; they are also well known favorite haunts of the sea-lions. The islands are further largely known to the general public from the wholesale collection of murres' eggs for market purposes, of which so much has been written that to add thereto would be mere repetition.

As a work of art the book is unsurpassed. The illustrations represent the rocky breeding places of thousands of sea-birds.

MY UNCLE BARBASSOU. By Mario Uchard. Paper 16mo; pp. 263. Price, 25 cents. Rand, McNally & Co., Chicago and New York.

This is No. 256 of the Globe Library, and constitutes one of the vast group of fiction known as "advanced" French novels. The hero very readily falls into the ways of his uncle, who though a Frenchman became a Mohammedan, and being a sailor possessed a wife in nearly every port besides conducting a harem at his country place in France. The young man falls heir thereto, and finally becomes madly in love with one of his houris, who is sought by a Russian prince. There is an abundance of kidnapping, spying, plotting, etc.—enough to satisfy the most exacting.

STORM SIGNALS. By Richard Henry Savage. Paper; 16mo; pp. 401. Price, 25 cents. Rand, McNally & Co., Chicago and New York.

This is No. 5 of Volume I of the Oriental Library, and like all others of the works of Richard Henry Savage is replete in interest, exciting in plot, along with an epitome of historical facts. The plot reaches from Washington to Central Mexico and deals largely with the immense cattle ranches of southeastern Texas, and the extensive smuggling which so long prevailed on the Rio Grande border.

THE FLYING HALCYON. By Richard Henry Savage. Paper; 12mo; pp 300. Price, 25 cents. Rand, McNally & Co., Chicago and New York.

This is No. 8 of the Oriental Library, and like most of the works of this author covers a deal of ground. The plot takes the reader from California to Mexico, thence to Hawaii, and back to Oregon. It deals with political intrigues in the State of Senora, and opium smuggling between the Orient and the Occident.

THE LIVING AGE. Price, $6.00 per year. The Living Age Co., Boston.

For all this periodical is fifty-three years of age it was never fresher, more vigorous or more valuable than now. Timely and able articles on the leading questions of the day, papers of interest and value, biographical, historical, and scientific, are always to be found within its pages. The following partial contents of recent issues will give a slight idea of its world-wide scope and variety: "Some Changes in Social Life During the Queen's Reign," by Sir Algernon West; "Apotheosis of the Novel under Queen Victoria," by Herbert Paul; "'Integrity of the Ottoman Empire' as a Diplomatic Formula," by Wemyss Reid and J. Guinness Rogers; "The Swordsmen of Spain," by Emilia Pardo Bazan. "Among the Liars" is the title given to an account of a visit paid to Crete a couple of years ago, and is of interest at this time when the name has become so tragically familiar. "Russia on the Bosphorus" is of more than ordinary interest, emanating, as it does, from the pen of an English naval officer, Capt. Gambier. "Henryk Sienkiewicz," the "Polish Tolstoi" as he has been called, by Edmund Gosse; "1497–1897: East and West," by Edward Salmon; "A Common Citizenship for the English Race," by A. V. Dicey; "Recollections of Frederick Denison Maurice," by Edward Strachey; "The Twentieth Italian Parliament," by "Ouida;" "The Birds of Tennyson," by Edgar Valdes; "Brahms and the Classical Tradition," by W. H. Hadow; "The Position of Non-Conformity;" "The Passing of the Fur Seal;" "Herr Richter's Great Speech;" the attractive serial "In Kedar's Tents," by Henry Seton Merriman, which continually grows in interest; some good short stories and equally good poetry, with the Monthly Supplement devoted to American magazines, extracts from New Books, and a List of the Books of the Month, vindicate the claim of its publishers that *The Living Age* is a reflection of the world's best thought and literature.

THE CENTURY. Price, 35 cents; $4.00 per year. The Century Co., New York.

In the July number John C. Van Dyke writes of "William Hogarth;" "At Twilight" is by W. C. Roberts; "Hugh Wynne, Free Quaker" (IX), by S. W. Mitchell; "Play in London," by Elizabeth R. Pennell; "Campaigning with Grant," by Horace

Porter; "The Human Legacy," by Priscilla Leonard; "After Big Game in Africa and India," by H. W. Seton-Karr; "Hunting the Jaguar in Venezuela," by W. W. Howard; "Sports," by W. A. Baillie-Grohman; "An Argonaut," by Mary F. Upton; "Inheritance," by Mary T. Higginson; "The Days of Jeanne d'Arc" (IV), by Mary H. Catherwood; "The Churches of Poitiers and Caen," by Mrs. Schuyler Van Rensselaer; "Up the Matterhorn in a Boat" (I), by Marion M. Pope; "Before a Closed Door," by John Bennett; "Are the Bosses Stronger than the People?" by Joseph B. Bishop. There are the usual departments.

THE ATLANTIC MONTHLY. Price, 35 cents; $4.00 per year. Houghton, Mifflin & Co., Boston and New York.

Professor Woodrow Wilson opens the July number with a paper on "The Making of the Nation." Edward Waldo Emerson writes of "John Sterling and the Sterling and Emerson Correspondence;" E. L. Godkin of "The Decline of Legislatures;" "The Future of Rural New England" is by Alvan F. Sanborn; "Burke: A Centenary Perspective," by Kate H. Claghorn; "Jowett and the University Ideal," by Professor J. Ashley; "The Juggler," by Mary N. Murfree; "Nég Créole," by Kate Chopin; "One Fair Daughter," by Ellen O. Kirk; "The Stony Pathway to the Woods," by Olive Thorne Miller; "A Life Tenant," by Ellen Mackburn; "Strauss, the Author of the Life of Jesus," by Countess Von Krockow. There is also a review of Mr. James Lane Allen's new novel, "The Choir Invisible."

ARCHITECTURE AND BUILDING. Price, 10 cents; $4.00 per year. William T. Comstock, New York.

The issue for June 12th contains: "Fireproofing in the Pittsburgh Fire;" "Editorial Notes and Comments;" "Fireproof Building Construction in the Pittsburgh (Pa.) Fire;" "In Streets and Papers;" "New Building Laws;" "The North River Bridge;" "Personal;" "Societies;" "Current Notes."

Contents of June 19th issue: "Underwriters' Views as to the Pittsburgh Fire;" "Editorial Notes and Comments;" "Myths, Superstitions, Romance, and Humor of Architecture" (XVI); "Exhibition of Architectural Drawings at Columbia University;" "The John Stewardson Scholarship;" "Pennsylvania State Capitol Competition;" "Obituary;" "Construction and Architecture of Library Buildings;" "Correction;" "In Streets and Papers;" "Correspondence;" "Current Notes;" "Special Mention."

ST. NICHOLAS. Price, 25 cents; $3.00 per year. The Century Co., New York.

The principal articles in the July issue are: "How Grandmother Met the Marquis de Lafayette," by Ella S. Partridge; "The Last of the Drums," by C. M. Perkins, U.S.M.C.; "Master Skylark" (XXVII–XXIX), by John Bennett; "The Chesapeake Mill," by William Abbatt; "Hunting for Shells," by H. D. Smith; "Lost His Pocket-knife," by Mary L. Herr; "The Little Drummer of the Woods," by Frank M. Chapman; "The Last Three Soldiers" (XVI), by W. H. Shelton; "Girlhood Days of England's Queen," by James Cassidy; "Honors to the Flag in Camp and Armory," by C. S. Clark; "Miss Nina Barrow" (X), by Frances C. Baylor; "The Round Glass Pitcher," by Condit Crane; "Brownies of the Insect World," by A. Hyatt Verrill; "The Good Behavior of Nancy Lee," by Christopher Valentine. There are the usual poetry and departments.

BIRDS. Price, 15 cents; $1.50 per year. Nature Study Publishing Co., Chicago.

The initial number of the new volume (June 9th) of *Birds*, a periodical illustrated with colored photography, is before us. The species delineated are: The Yellow-throated Vireo, American Mocking-Bird, Black-crowned Night Heron, Loggerhead Shrikes, Baltimore Oriole, Snowy Owl, Scarlet Tanager, Rough Grouse, and Black and White Creeping Warbler.

It must be a mystery to every one how such a remarkable journal, one so faithful to nature, can be produced at so small a price. A special summer offer is given to new subscribers of a colored photograph thirteen by eighteen inches on card nineteen by twenty-five inches of the Golden Pheasant. Every child should be a recipient of this journal, and no working ornithologist can afford to be without it.

GODEY'S MAGAZINE. Price, 10 cents; $1.00 per year. The Godey Company, New York.

The July issue is an anniversary number and has for cover a facsimile of the design under which the publication made its first appearance in 1830. Among the most interesting papers are: "The Return from Mecca," by Eugene Duerr; "My Wild Garden," by Margaret W. Leighton; "The Colored Woman of To-day," by Fannie B. Williams; "Lindy's Recompense," by Frederick W. Pangborn; "An Exception," by Grace MacG. Cooke; "A Watch in the Night," by Marion Abbott; "Blood Will Tell," by George E. Walsh; "The Man I Want to Catch," by Snowdie B. Willis; "The Making of Horace," by Marion Hill; "The Mysterious Mr. Bugle," by Beaumont Fletcher; "California Poets at Home," by E. A. Vore and J. T. Connor; "Music in America" (XXIII), by Rupert Hughes; "A Spoil of War," by Beulah M. Dix; "Brevities," by A. L. Benedict.

THE AMERICAN MONTHLY REVIEW OF REVIEWS. Price, 25 cents; $2.50 per year. The Review of Reviews Co., New York.

The beginning of a new volume of this magazine is signalized by an expansion of the name. The great international questions of the hour, and American questions of a political or economic character, are discussed in the editorial department. Edward Cary contributes a character sketch of President Seth Low; Doctor E. R. L. Gould gives an interesting description of "Homewood," the suburban settlement now being developed by the City and Suburban Company, of New York. "Higher Deaf-mute Education in America" is by A. W. Greely; Sylvester Baxter contributes a sympathetic review of Edward Bellamy's new book.

MCCLURE'S MAGAZINE. Price, 10 cents; $1.00 per year. The S. S. McClure Co., New York.

The July number opens with an interesting account of the actual daily life in a little "Republic" where the citizens and governors are young boys and girls from the poorest and most crowded

districts of the City of New York. The late "Professor Drummond" is the subject of a paper by D. M. Ross. Other features of this number are a fine series of life portraits of Andrew Jackson along with some reminiscences by his granddaughter, Rachel Jackson Lawrence; an adventurous tale by Conan Doyle, a paper on "Grant," by Hamlin Garland; the account of the voyage of the "Mayflower," from Governor Bradford's quaint and naïve "History of Plymouth Plantation," lately presented to the State of Massachusetts; a latter-day Romeo and Juliet, by Anthony Hope.

LIPPINCOTT'S MAGAZINE. Price, 25 cents; $3.00 per year. The J. B. Lippincott Co., Philadelphia.

The complete novel in the July issue is "A Mounted Moloch," by Duffield Osborne. "The Evolution of Newspaper Advertising" is by Oscar Herzberg; "The Play of the Broncho," by Allan Hendricks; "Quarantine for Cattle," by H. H. Bowen; "Suicide Among the Ancients," by Lawrence Irwell; "The American Drama," by Ingram A. Pyle; "The Fantastic Terrors of Childhood," by Annie S. Winston; "The Decline of the Hero," by Ellen Duvall. Louise Boynton writes of "William's Spree," and W. C. Morrow of "The Haunted Burglar." The poetry of the number is by Mary E. Stickney, Carrie B. Morgan, and Clinton Scollard.

THE OSPREY. Price, 10 cents; $1.00 per year. The Osprey Co., Galesburg, Illinois.

The June issue presents a number of interesting articles: "Water Birds of the Quiver Lake Region," by P. M. Silloway; "American Osprey Notes at Gardiner's Island, New York," by Henry R. Buch; "Notes from Maine on the American Osprey," by Ora W. Knight; "The American Osprey in Lower California," by Horace A. Gaylord; "Some Observations on the Nesting of Ducks," by Eugene S. Rolfe. There are the usual Editorial Notes, Ornithological Bulletins, etc., etc. The frontispiece is a most excellent representation from a photograph of the nest and eggs of the American osprey.

OUTING MAGAZINE. Price, 25 cents; $3.00 per year. The Outing Co., New York.

The contents for July are: "Her Highness," by Caroline Shelley; "The New Twenty-Footers," by R. B. Burchard; "Artistic Photography Awheel," by Doctor John Nicol; "Cycling Clubs," by A. H. Godfrey; "Salmon Fishing in Cape Breton," by W. H. Mac; "The Yachting Circuit of Lake Erie," by C. F. Flannery; "Along the Reviera Awheel," by Paul E. Jenks; "Across the Alleghanies Awheel," by John B. Carrington; "Canoeing Down St. Joseph's River," by Katharine Reighard; and the usual editorials, poems, and monthly records of amateur sporting events.

SCRIBNER'S MAGAZINE. Price, 25 cents; $3.00 a year. Charles Scribner's Sons, New York.

The principal papers in the July issue are: "Undergraduate Life at Yale," by Henry E. Howland; "A Rejected Titian," by Robert Herrick; "White Pansies," by Archibald Lampman; "The Modern Business Building," by J. L. Steffens; "John Cabot," by the Marquis of Dufferin; "Greencastle Jenny," by Helen G. Cone; "London People," by C. D. Gibson; "William Morris," by Walter Crane; "The Story of a Play" (XIV–XX), by W. D. Howells; "Whist Fads," by "Cavendish." There are the usual departments.

THE PHRENOLOGICAL JOURNAL. Price, 15 cents; $1.50 per year. The Fowler & Wells Company, New York.

In the July number Nelson Sizer writes of "Charles Scribner" and "John H. Dingman;" "The Genesis of Thought" is by J. W. Shull; "Phrenotypes and Side Views" (No. 13), by H. S. Drayton; "Mrs. Mary L. Hall," by J. A. Fowler; "A Skull," by Frank Mannion; "Men of Note," by S. B. W.; "Looking Backward and Forward," by William Brown. There are "Science of Health," "The Fowler Institute Report," and the usual departments.

APPLETON'S POPULAR SCIENCE MONTHLY. Price, 50 cents; $5.00 per year. D. Appleton & Co., New York.

The July issue contains a thoughtful article on "The Principle of Economy in Evolution," by Edmund Noble; "Some Facts About Ants, Bees and Wasps" is an interesting account of these three representatives of the Hymenopteræ; Professor Ripley's article on "The Racial Geography of Europe" in this issue is devoted to France; "The Curious Psychological Conditions Dominating the Mob" are discussed by Professor E. A. Ross; "Saturn" is the subject of an instructive paper by Clifton A. Howes.

THE COSMOPOLITAN. Price, 10 cents; $1.00 per year. The Cosmopolitan Publishing Co., Irvington, New York.

In the July issue the horrible scenes among the plague-ridden districts of India are the subject of Julian Hawthorne's paper. Professor H. T. Peck contributes the fourth paper on "Modern Education." "The Genesis of a Comic Opera," by Reginald DeKoven; a sketch. "Jolly," by J. J. a'Becket, and a story by Amelie Rives are other notable features. Robert W. Chambers' new story, "A Matter of Interest," is begun this month. There are the usual departments.

THE DECORATOR AND FURNISHER. Price, 20 cents; $2.00 per year. The Art Trades Publishing and Printing Co., New York.

The June issue contains: "Articles of General Interest;" "Of Interest to Women;" "The Growth of American Art;" "Studio Notes;" "Concerning the Importance of First Impressions;" "Design for Window Drapery;" "American Stained Glass;" "Studies in Flower Language;" "Italian Renaissance Library;" "Decorative Notes;" "Simple Treatment of an Entrance Hall;" notes on "Pottery, Porcelain, and Glass."

VICK'S MAGAZINE. Price, 50 cents per year. Vick Publishing Co., Rochester, N. Y.

The July issue contains: "Strawberry Notes;" "Guayamas, Mexico;" "Flowers for Decorating Churches;" "Candidum Lilies for Outdoor Culture;" "Currant or Gooseberry Caterpillar;" "The Welwitschia;" "Propagating Currants and Gooseberries;" "Jadoo;" "Ants on the Lawn;" "Relationship of Birds and Reptiles;" "Plants for Winter Window-Garden."

Therapeutic Brevities.

Chloral in Diseases of Children. — Chloral hydrate belongs to a class of drugs the dangers of which are so emphasized that their good qualities are apt to be lost sight of. I do not advocate its indiscriminate use, but when it is employed suitably, and in doses sufficient to produce a definite effect, it may prove of value.

It is essential that the drug be absolutely pure, that the patient should be kept in bed, and carefully watched when full doses are employed; with these precautions no bad effects, either immediate or remote, will follow. The appetite is not interfered with, the intestinal functions are not disordered, symptoms of cardiac failure do not occur, and the drowsiness and lassitude produced by full doses pass off when the use of the drug is stopped. It may be administered alone or with tincture of digitalis when cardiac complications exist, and in some cases it may be advantageously combined with potassium or ammonium bromide.

In three cases I employed chloral hydrate with good results. The first was that of a girl eight years old subject to epileptic attacks, which were controlled by chloral hydrate in combination with potassium bromide. A period of four months has elapsed since the occurrence of the last fit, and the patient's general health is excellent. The second was one of progressive chorea in a girl of ten years; the cardiac action was rapid and somewhat weak, and a systolic murmur of mitral origin was present. Active measures were called for, and four ounces of brandy were given every day, and ten grains of chloral every four hours. After four doses had been given the patient obtained about twenty-four hours' sleep and rest, and the use of chloral was then resumed, in ten-grain doses twice a day. On the eighth day the jerking had practically ceased, and coordinating movements of the limbs could be carried out with precision. The use of the chloral was discontinued five days later, and the patient was allowed to get up. The third was one of bronchitis and asthma in a child over three years of age, and it illustrates the effect of chloral in the paroxysmal dyspnœa of asthma.

These affections resemble each other in being associated with an unstable condition of the nervous system, which manifests itself by some disturbance of function. This disturbance by repetition leads to the production of a vicious habit which it is difficult to cure. It is probable that no single drug is suited to all cases of this description, but in my experience chloral is serviceable in some cases. The best method of administration is to give at first in full doses so as to break the habit as quickly as possible, and then in doses sufficiently large to keep the evil tendency in check.—SUTHERLAND, in *Treatment.*

Hydrocyanic Acid an Antidote to Chloroform. —Having observed that the respiratory center is usually paralyzed first when death occurred during chloroform anæsthesia, I thought hydrocyanic acid might prove of service as an antidote where the breathing was becoming shallow and weak, on account of the rapid and powerful temporary exciting effect this drug exerts on the respiratory center. This led me to experiment, and in thirty-one cases the administration of hydrocyanic acid successfully combated chloroform poisoning in dogs. In eleven instances the treatment was unsuccessful. These observations lead fairly to the conclusion that hydrocyanic acid is of value as an antidote to chloroform, its beneficial effects being due to its property (when given in certain doses) of rapidly and violently stimulating and exciting temporarily the respiratory and cardiac centers, and so counteracting the depressant and paralyzing effects of chloroform. The drug should be placed on the back of the tongue or injected hypodermatically. In all the cases Scheele's acid was used, on account of its strength and consequent rapidity of action. For animals I consider one minim of Scheele's acid for every seven or eight pounds of body weight a fair average dose. It is well not to be too anxious to administer a second dose till perfectly sure the first has been futile. The question may be raised as to the proportion of cases that would have recovered under artificial respiration alone, but my observations lead me to believe that the use of the acid gives an enormously higher proportion of successes.—HOBDAY, in *Journal of Comparative Pathology and Therapeutics.*

Opium in Diarrhœas of Children. — In no other condition is so much discrimination demanded. It is contraindicated in the first stages of acute diarrhœa, before the intestinal canal has been freed from decomposing matter; when the passages are infrequent and of bad odor; where there is a high temperature or cerebral symptoms are present; when its use is followed by elevation of temperature or the passages become more offensive — symptoms which indicate toxic infection from putrefying intestinal contents. It is indicated when the passages are frequent, with pain; when

the passages are large and watery; in dysenteric diarrhœa, together with castor oil or a saline; in late stages, with small, frequent, nagging passages; when the passages consist largely of undigested food, and the bowels act as soon as food is taken into the stomach.

The locking up of putrefying matter in the intestinal canal by opium violates every right principle of practise. Diarrhœa is a conservative process, and frequent movements should be encouraged. Opium arrests intestinal movements and prevents the elimination of toxic materials, and thus may give rise to grave symptoms of intoxication and sepsis.

The dose should be as small as possible, sufficient being given to relieve pain and check peristalsis. It should not be added to the ordinary diarrhœa mixture, to be repeated at short intervals, but be given alone, and at intervals sufficient to allow the effect of one dose to partially subside before the next is administered. This interval will be rarely less than four hours.—*Pediatrics.*

Cystitis in the Female.—Remove any discoverable source or sources of irritation which act through the medium of the urine; also any mechanical source of vesical irritation should receive appropriate treatment:

The urine should be rendered bland by the use of a milk diet, the ingestion of considerable quantities of water, the administration of potassium citrate if too acid, or of boric acid and salol if alkaline:

Pelvic congestion should be relieved by hot vaginal douches, placing the patient in the knee-chest position, and the correction of constipation:

The inflamed cystic mucous membrane may be relieved by the administration of boric acid, santal wood oil, copaiba, or creosote by mouth, or injections of boric acid, carbolic acid, or nitrate of silver in suitable strengths:

The general health should be improved by tonics, etc.:

Rest in bed, especially in all acute cases, is absolutely imperative:

While advocating direct local treatment in cases of cystitis which do not readily respond to ordinary therapeutic measures, I must advise that it be employed with judgment and caution.—HERSLER, in *Massachusetts Medical Journal.*

Diet in Phthisis.—The day is past when such advice as "eat anything you want and plenty of it" can be given with safety. Feed our patient according to well known physiological laws, and with a scientific and accurate knowledge of what and how much he needs. It does not make one particle of difference whether the bacilli are found in the sputum or not. Whether the case is tubercular, hereditary, a result of the influenza, or whatever the cause, the fact is that he responds to treatment just as quickly in one case as in another. Pay no attention to his plea that he "cannot eat meat." Put him at once upon a diet of broiled beef pulp and hot water; exclude all other foods and drinks and wait for results. It will not be long before the stomach accepts the terms offered and goes to work in earnest. The appetite returns, and then the trouble is to keep the patient from eating too much.

The exclusive beef diet is to be kept up till the urine is clear and free and the appetite good, when a gradual enlargement of the diet along the line of whole meats, eggs, and bread may be carefully entered upon. Fats and starches should be used carefully at first, till they are readily digested without acid fermentation. The cereals may be used when well cooked, but vegetables are best avoided. All desserts, sweets, made dishes, and fried foods should be forbidden. Meats are best used freshly broiled or roasted.—*Charlotte Medical Journal.*

Hypertrophied Prostate.—Early in the disease catheterization is valuable, but may be dangerous if not entirely aseptic, particularly when entrusted to the patient himself; here electrical treatment is often of great service. I use a gum elastic sound with the end cut off; it is traversed by copper terminating at one end in an olive-shaped bulb of the same metal; at the other, in a ring to which the negative rheophore can be attached. The sound is introduced into the urethra, so that the bulb is in contact with the prostatic urethra. The result of electrolization is a marked diminution in the size of a gland, probably due to the awakening of the dormant activity of its smooth muscle fibers. This view is confirmed by the fact that in the old-standing cases in which sclerotic changes have taken place in the prostate electricity is unavailing. I consider that electrolysis should be restricted to the early stages of hypertrophy, in which it is most valuable as determining a change in the intimate stricture of the gland. Later on, when definite and permanent retention together with other changes has supervened, perineal drainage and suprapubic cystotomy are valuable.—VAUTRIN, in *Archives d' Electricite Médical.*

Intolerance to Salicylate of Sodium.—A servant aged nineteen suffered from acute rheumatism. She told me she was unable to take "rheumatic medicine." I prescribed ten grains of sodium salicylate thrice daily, and sent her home to bed. Next day the pains had all but gone, but she complained of severe headache, ringing in the ears, giddiness, and lightness of the head, all of which came on shortly after she had taken the second dose of salicylate. In the morning the symptoms had gone, and after a light breakfast she had a third dose, shortly after which the giddiness, headache, and ringing in the ears returned as badly as ever.

I questioned her closely in case she should ever have been warned of the possible effects of an overdose, and have imagined all the symptoms, but she replied that she had never either heard of or experienced them before; the reason for the "rheumatic medicine" having been stopped before, she said, was on account of weakness of the heart. She was not hysterical—had not taken more than a ten-grain dose; and later on I found even a five-grain dose produced similar but less severe effects.—WIELD, in *The Lancet* (London).

Osmic Acid Injections in Neuralgia.—In three cases, of duration varying from two to nine years, where prolonged treatment by other methods had failed, injections of osmic acid were followed by rapid cessation of pain. In one of these the patient, a woman aged twenty-seven, had suffered four years, the neuralgia being so severe as to cause loss of hair and emaciation. Partial relief was given by dividing the infraorbital nerve, but pain still persisted in the supraorbital region. This was completely relieved by two injections of osmic acid, and the patient then gained flesh and recovered her hair. The solution used was a one-per-cent. solution, of which one to four minims were injected on each occasion.

The best results are obtained by injecting the acid directly into the nerve, and thus success is most likely where the nerve is superficial, and can easily be reached. The pain at the moment of injection is intense, and may cause fainting; but this, however, rapidly passes off, and no evil result need be feared. This method of treatment may be successful when all other means have failed. —FRANCK, in *Fortschritte der Medicin.*

Janet Treatment of Gonorrhœa.—Goldberg, of Cologne, gives a table of fourteen cases treated by the Janet abortion method. In all but one the cure was effected in so short a time as to justify the use of the term abortion. The treatment was begun in from two to seven days after the appearance of the first symptom, and consisted in injecting twice a day the anterior urethra with a solution of the permanganate of potassium 1 to 2000 to 1 to 4000, according to the effects produced. From five to fourteen injections were required to produce a cure. The gonococci disappeared in from two to fifteen days. In all the cases the urine ceased to show any signs of the discharge with the disappearance of the gonococci. All the patients were allowed to go about as usual during the treatment. This treatment seems to give better promise of success than any heretofore tried.—*New York Medical Times.*

Night Sweats.—Atropine is often objectionable on account of the excessive dryness of the mouth and fauces it produces, and agaracin though sometimes very effective often fails entirely. The use of camphoric acid has been strongly emphasized within the past few years. Hare found it controlled the large majority of sweats in tuberculosis without any unpleasant after-results. About twenty grains given in whiskey an hour or two before the expected attack will usually be sufficient to produce the desired result. Small doses of the acid are of great benefit in idiopathic ptyalism or druling of children, as it controls the salivation without disabling digestion.—*Medical Times.*

Vomiting in Phthisis.—As a rule little benefit is experienced by the use of opiates and counter-irritants in the vomiting after food in phthisis, these methods being directed to lessening cough. Excellent results may be had from small pieces of ice given immediately after meals, and equal success from chloroform water and menthol after food; attacks of cough are thus lessened or suppressed, and do not cause vomiting. Ferrand stated the vomiting is often due to exaggerated sensibility of the pharynx, and in such cases a solution of potassium bromide in glycerin applied topically serves well.—MATHIEU, in *La Semaine Médicale.*

Common-sense Surgery.—Generally our departure from simple, easy, scientific, and common-sense methods results in mischief. The varied and complex conditions with which we have to deal do not call so much for surgical genius as for surgical common sense. Skill and success in doing comes of

doing. In surgery it is not safe to assume advanced theoretic positions on the mere faith that they will afterwards be confirmed. Such theories often lead to dangerous experimentation with human life.—JOSEPH PRICE.

Sourwood for Difficulty in Urinating.—A man aged forty-five had been suffering two or three days with frequent desire to urinate, attended with a burning pain near the end of the penis; could pass only a few drops of water at a time, and then it was mixed with blood. I prescribed oxydendron, a teaspoonful three times a day, and at the end of five days he declared himself "all right;" that he was perfectly relieved in twenty-four hours from the first dose.—DAVIS, in *Eclectic Medical Journal.*

Hypochlorhydria.—

℞ Tincture gentian,
Tincture quassia,
Tincture cascarilla,
Tincture absinthe, equal parts.

A teaspoonful ten minutes before meals.

The patient should further take ten or fifteen drops of hydrochloric acid in a little water at the end of the noon and evening meal.—CARDARELLI.

Influenza.—

℞ Quinine sulphate, 45 grains.
Powdered digitalis, 15 grains.
Powdered squill, 15 grains.
Extract of opium, 4½ grains.
Liquorice juice, a sufficient quantity.

Divide into thirty pills, of which four are to be taken daily.

—*Wiener Medizinische Blätter.*

Preservation of Gum Catheters.—Articles of vulcanized rubber, hard or soft, vulcanite, etc, may be preserved for many years, or indefinitely in fact, by keeping them immersed in a three-per-cent. aqueous solution of carbolic acid, contained in a tall, wide-mouthed, glass-stoppered jar.—COESTER, in *Aertzliche Central-Anzeiger.*

Vaginitis.—

℞ Alum, 1 ounce.
Zinc sulphate, 1 ounce.
Borax, 1 ounce.
Carbolic acid, 1 ounce.
Water, 6 ounces.

A tablespoonful to a quart of lukewarm water as a vaginal injection twice daily.

—*Vanderbilt Clinic.*

Falling Out of Hair.—

℞ Tincture red cinchona, 1 ounce.
Tincture cantharides, 30 minims.
Carbolic acid, 30 grains.
Tincture Ignatia, 7½ minims.
Cologne water,
Cocoanut oil, of each sufficient to make 4 ounces.

Make one or two applications daily.

—*Extraits du Formulaire Clinique de Vienne.*

Erysipelas of Face.—

℞ Carbolic acid, 30 grammes.
Tincture of iodine, 30 grammes.
Alcohol, 30 grammes.
Oil of turpentine, 60 grammes.
Glycerin, 90 grammes.

The lesions are to be painted with this liniment every two hours, and covered with aseptic tarletan.

—*Presse Médicale.*

Bleeding Gums.—After extraction of teeth the following is an efficient styptic:

℞ Chloroform, 1 drachm.
Tannic acid, ½ drachm.
Menthol, ½ drachm.
Tincture krameria, 1 drachm.
Distilled water, to made 1 pint.

—VIAN.

Abortion of Erysipelas.—Employ a spray of sublimated ether (one to one hundred); if the infiltration be not extensive the application should be continued until vesication occurs; if the involvement be extensive the central portion only is to be moistened.—TALAMON.

Acute Coryza.—Employ locally a snuff composed of eight grains cocaine muriate, four grains menthol, seventy-five grains salol, and half an ounce of boric acid.—*Gazette Hebdomadaire de Médecine et de Chirurgie.*

Exophthalmic Goitre.—Tincture of *Fucus vesiculosus*, thirty drops three times a day, is said to be a specific, but the treatment must be continued several months.—*New Remedies.*

Digitalis.—That grown on hills is much more active than the foxglove that grows in valleys or is cultivated.—MURRELL.

Tinnitus.—Small doses of pilocarpine hypodermatically are recommended for the vertigo and tinnitus aurium of Ménière's disease. —*Medical Summary.*

Medical Progress.

REPORT ON HYDROPHOBIA.*—It is now eleven years since the Medical Society of the State of Pennsylvania by resolution requested me to continue the studies in regard to hydrophobia of which at that time I made a report, and to communicate the results of these studies to it from time to time. Several of these communications have already been made, and I now wish to report the cases of so-called hydrophobia that I have collected and studied during the two years since the meeting in 1895. The accumulation of these cases has required a great deal of labor, and I have taken pains to verify as far as possible the facts, and to correct the errors of published accounts by correspondence with the physicians who have had the care of the cases. I have sent to a large number of physicians a blank, in order to obtain answers of a systematic character. Many of my correspondents, in addition to filling up these blanks, have communicated with me by letter, explaining points outside of those referred to in the blank, or giving fuller details than the blank permitted.

I think it proper to remark (as others may) that there have come to me only those cases occurring east of the Mississippi River. I have at times had information of cases further west, but either the disease is very infrequent in the far West or the reports of cases do not reach the East as do those of cases occurring in the latter section.

I find that I have collated forty cases. Of these, twenty-three occurred in the States of New York, New Jersey, and Pennsylvania; six occurred in Ohio, Kentucky, and West Virginia; four in Maryland; one in Washington, D.C.; two in Georgia; two in Louisiana; and one in Illinois. A large number of these cases to my mind fall plainly under the head of spurious cases, but they have all been considered by those who treated them, or by their friends, as genuine cases of hydrophobia. For example, a little child died last year at the Pennsylvania Hospital, in Philadelphia, of what was believed to be hydrophobia by the medical men in attendance, though experimental investigations made by the then bacteriologist to the Board of Health of Philadelphia, Doctor Bolton, led to absolutely negative results; and, according to the test which is spoken of as infallible by those who follow the lead of Pasteur, the child could not have died of hydrophobia. Another case was that of a man believed to have died of hydrophobia, but who was found by a coroner's inquest and autopsy to have died of pneumonia and uræmia.

Two very striking cases occurred within a year at Duryea, near Wilkes Barre, Pa. One was that of a boy bitten by a dog that had no symptoms of rabies whatever, who was sent to New York and treated in the Pasteur Institute, and soon after his return (May 12, 1896) died of paralytic rabies—a form of rabies that was unknown before the time of Pasteur's so-called prophylactic treatment. The other boy died March 14, 1897, six or eight weeks after a dog bite; and my correspondent in Duryea writes me that a dog and three other children bitten at the same time are still alive and well. The boy that died lived within five hundred yards of the boy that died in 1896, and he had been so talked to about hydrophobia and was so nervous that he was in constant dread of the disorder and was afraid to go abroad.

A specimen of an imperfect account is furnished by the case of a man who died July 23, 1895, in Chicago. The victim had rescued a child from the attack of a dog some months before at Perth Amboy, N. J., and was bitten in the leg. He was cauterized. After the lapse of several months he appeared in Chicago, unable to talk coherently, and not able to remember how he had reached Chicago from New York. The account states that "a physician declared that Bulow had the rabies." He was strapped in bed, and in a short time died.

Another curious case is that of a little boy who died February 19, 1896, in Brooklyn, after an attack of some apparent inflammation of the throat, and the opinion given by a physician of the New York Pasteur Institute that his case was hopeless. It is regretted that chloral was freely administered from first to last. At an autopsy it was found that the cause of death was œdema of the lungs, while the meninges of the brain were somewhat inflamed. The father of this boy was treated at the New York Pasteur Institute, because it was feared that he had received some of the boy's saliva in a cut (how recent is not stated) upon his thumb.

Another interesting case is that of a young woman of New Jersey (whose death is not recorded and whose case is not in my table) who, in March, 1896, had all the symptoms of hydrophobia except inability to swallow—which the account hopefully says "may come later." She was a nervous person. Her clothing had been torn by a dog, although her skin was not injured. She was a constant reader of hydrophobia literature.

* Read before the Medical Society of the State of Pennsylvania.

A point of interest to me in this investigation has been to compare the number of deaths that I find after bites of animals believed to be rabid with those that are the foundation of a great many statistics. In 1895 I reported finding three deaths in one hundred and seventy-five persons bitten. Of these three, one had been treated in the Pasteur Institute in New York; of the second I have no details at all; and the third was a child that died three weeks after being bitten, and while the dog was still alive and as active as ever. Since then I have investigated ninety-two cases of persons bitten by dogs believed to be rabid, with five deaths; and every one of these five patients had been treated at the New York Pasteur Institute. In these cases the bites were inflicted by animals that bit one or more persons and animals.

The figures just given, of course, do not represent what could be considered as an absolute ratio of deaths to the bites of animals believed to be rabid. They deserve careful consideration, however, from the fact that persons bitten under circumstances of such grave suspicion and so naturally alarming might be expected to furnish quite as large a quota of deaths as any class of bitten persons.

The most dramatic occurrence of the past two years in connection with hydrophobia is unquestionably the death in Baltimore of four children out of eight bitten by one dog, and all treated at the New York Pasteur Institute. I have a large correspondence in regard to these cases, and I went to Baltimore to learn more about them. I found the medical profession in that city naturally much impressed, and disposed to accept the opinion of those who attributed the deaths to the dog bite, and not to the treatment; but from my knowledge of the disease and my acquaintance with the peculiar features that have been introduced into its symptomatology since the practise of so called "protective inoculations," I am strongly of the opinion that the boys died partly of laboratory rabies, partly of dread and mental impressions, and partly from the way in which they were treated. I am impressed more and more every year that the general mode of treating hydrophobia—the mode recommended in the text-books—is probably responsible for a considerable number of deaths charged against the disease. It is to me a most astounding thing that medical teachers will advise and medical men will practise the treatment of these diseases with morphine, atropine, chloral, bromides, and chloroform, when it must be known that narcotics have never rescued a single person from death. I am satisfied that it would be better to administer no medicine at all than to continue this pernicious practise. One of my correspondents writes me that the father of his patient—a veterinary surgeon bitten by a dog that was not rabid, and who endeavored to fortify himself against his obvious fear by reading on the subject—requested him to give something to his son to kill the latter. He writes further that this he did not do, unless it might be that the opiates he gave produced the desired result.

A case interesting to me has occurred within the past year. Last May a child was brought to me who had been bitten by a stray puppy with which it was playing. The child's wound was cauterized with nitrate of silver soon after. The dog died of fits at the Philadelphia pound, where the pound-keepers state it was not rabid. A veterinary surgeon who had seen the dog and was obviously afraid of it said that the dog was rabid. Experimental inoculations made with the medulla of the dog by the bacteriologist of the city of Philadelphia killed rabbits, and the opinion was positively given by the bacteriologist and by the coroner's physician of Philadelphia that the dog was rabid and that the child was in great danger. The father was advised to send the child to New York. At the suggestion of a physician who was interested in my investigations the child was brought to me. I measurably allayed the horrible anxieties of the father and mother, although it was impossible entirely to remove the effect of what had been said to them, and undertook the care of the child. That child is to-day in perfect and blooming health. From what I know of the nervous make-up of the whole family I should fear very much the effect on his mind of such associations as are inevitable to those who go to a Pasteur Institute for treatment, even if the inoculations there practised did not produce that deadly disease known to non-credulous observers as "laboratory rabies."

I have sometimes known a great deal to be made of the occurrence of so-called hydrophobia in very little children, and I have in my records cases of abject fear and a certain knowledge of the symptoms in children four or five years old, and I personally know of children under four years of age whose dread of dogs is so great that they might easily have the symptoms of any disease shaped largely by what is with them a dominant idea.

In this connection I may speak of what I may call a dominant idea of physicians and of the laity, namely, that persons with so-

called hydrophobia may inoculate others with the disease. This is an absolutely false idea. There is not in the whole history of hydrophobia a single credible case in which a person suffering with hydrophobia has communicated this disorder to another human being or animal, and it is safe to say that all persons suffering with this disorder who show a disposition to bite are simply maniacal. My own observation and my studies convince me that those cases which have the greatest claim to consideration as cases of inoculation with rabies present no such symptom as imitation of the action of dogs or a disposition to bite. When I read accounts of children only nine or ten years old requiring the combined strength of several men or restraining with ropes to keep them from injuring others I regard it as a sad demonstration of the profound ignorance that members of the medical profession share with the laity in regard to this subject, and the weakening of their judgment by their fears.

In concluding this informal presentation of the panorama that has passed before me in the last two years, I would like to make a brief statement in regard to my own position.

I began to study hydrophobia more than fifteen years ago, and I have tried to familiarize myself with the literature of the subject from the earliest times until the present; I have seen three cases in my own practise and in consultation; I have carefully studied the details of thousands; I have followed the discussions on the subject which have taken place in scientific societies in every part of the world; I have kept track of the doings of Pasteur and his colleagues and followers year by year since they were first made public; I have had a very large correspondence from all parts of the world in regard to it; I have tracked up many cases to ascertain facts not stated in public accounts, or to obtain explanations of what was stated; I have studied the diseases in which the symptoms of so-called hydrophobia occur; and I have endeavored to interpret correctly the facts that I have collected. At the beginning my views were those which I presume are now held by the most cautious minds; but as my study has progressed I have become entirely satisfied that hydrophobia cannot be considered as a specific disease. I think the word "hydrophobia" should be used just as we use the word "convulsions," without prejudice as to the cause of the phenomena. There can be no doubt that death with a peculiar train of symptoms has often followed the bite of a dog; but these symptoms and the usual fatal issue are in no way peculiar to injuries inflicted by animals believed to be rabid. There are very many cases in which the belief in the madness of the dog rests wholly upon the result in the person bitten, and it is not scientific to assume that this belief is more than a belief; and no person fit to discuss the question would treat it as a demonstration. Further, the symptoms appear in a great many diseases, and persons bitten by dogs enjoy no immunity from these diseases. Besides this, there are many cases in which persons have died of hydrophobia while the dogs have survived. There are other cases in which the symptoms of hydrophobia have appeared after various traumatisms; and such a traumatism as is caused by a dog bite may (without assuming the presence of a specific virus) lead to nervous symptoms and death.

It is curious, in considering the effect of dog bites, to note that they should cause so many deaths in what we may call the private walks of life, and practically none among men who are constantly handling large numbers of dogs. My notes furnish me with but a single case of death from hydrophobia occurring in the person of a keeper or attendant in a public pound in any large city in the world, from Paris to Philadelphia, and from Moscow to San Francisco. The same is true in regard to persons who habitually take stray dogs upon the street, such as dog catchers, policemen (as in London), and the attendants of such an institution as the London Home for Lost and Straying Dogs, where over two hundred thousand dogs have been handled without a case of hydrophobia. I have consulted a number of keepers of so-called "kennels," and I have never learned of a death among any of them, although I have found innumerable bites, many of them by dogs believed by their owners to be rabid. It is a remarkable fact also that, though there has been such a fever of excitement about rabies in Paris in recent years, I learn of no deaths among the pound-keepers and attendants there. If the bites received by the persons employed in such places could be counted, the customary figures in regard to the ratio of the deaths to bites would have to be enormously modified. The often-quoted guess of John Hunter of 1 to 20, or the new-fashioned one of Pasteur of 1 to 16, would probably have to be exchanged for one much lower than that which I have seemingly gathered, of 1 to 75 or perhaps 100.*

All these things and many more that I cannot recount have led me to my present conviction. —CHAS. W. DULLES, in *Medical Record.*

*Let it be understood that the figures above, 5 to 92, I am disposed to attribute to the treatment of the Pasteur Institute.

THE HINDU LYING-IN CHAMBER.—The mortality in childbed among Hindu women is notoriously high, a circumstance which is no doubt largely due to the very early age at which they usually become mothers. A still more potent cause, however, is to be found in the shocking and apparently deliberate barbarity with which they are treated during the puerperium. The lying-in chamber of a Hindu family is ordinarily a little, damp, ill-ventilated hut or room in some remote corner of the courtyard or compound. In this the expectant mother is placed, and there she remains from eleven to thirty-one days, during which, according to Brahminical law, she is looked upon as unclean. There is only one small inlet in this apartment, and the door is carefully closed to exclude those evil spirits, light and air. In order probably to purify the unfortunate woman by heat, wood-fires are kept burning in the room both night and day. The smoke has to find its way to the outer air as best it can through any chinks there may happen to be in the roof or walls, which are usually made of bamboo with a thatching of mats or straw. With the view of more effectually exorcising the unclean spirit a powder composed of peppercorns or ginger is given to the patient during the first few days; this preparation is administered either in the form of a paste or dissolved in boiling water as a tisane. It is not surprising to learn that the result of this elaborately perverse therapeusis is that something like forty per cent. of the women subjected to it die of puerperal fever and tetanus within the first fortnight after delivery.—*Indian Medical Record.*

LITHOLAPAXY IN THE FEMALE.—The advantages which this operation offers in the female over other recognized operative procedures is: that it renders a protracted sojourn in bed unnecessary; that there is absolute freedom from sequelæ which are likely to occur in any of the cutting operations; and that the dilatation of the urethra is not required beyond the limit—three-quarters of an inch—thus obviating the likelihood of loss of control of the sphincter. The shortness of the urethra, the infrequency of stricture, and the dilatability of the urethra, makes the operation of litholapaxy in the female simpler than in the opposite sex. The anatomical position of the bladder in the female differs from that of the male, necessitating the holding of the lithotrite in a more vertical position in order to more readily crush the fragments.

The introduction of the finger into the vagina and pressure made against the posterior wall of the bladder will oftentimes be of aid in grasping the fragments of stone. In evacuating, a short tube is to be preferred.

In rare instances suprapubic lithotomy may be necessary in cases where the stone is so large that the bladder will not hold sufficient solution to permit of crushing.—DEAVER, in *Virginia Medical Semi-Monthly.*

VAGINAL EXAMINATION OF THE UNMARRIED.—In supposed pelvic disease in young unmarried women a pelvic examination is too often proposed and carried out. It should be remembered in this connection that the large majority of diseases peculiar to women are sequences of coition and its results, either pregnancy or specific infection,—neoplasms are, of course, excepted; consequently it can usually be predicted that a pelvic examination will result negatively and is consequently unnecessary. Baldy finds this to be true in the majority of cases, and urges the advisability of paying more attention to the patient's general health and antecedents. This is the more important, as a hysteric or neurotic girl's attention being once pointedly directed to her pelvis as the seat of her trouble, she often becomes a chronic pelvic sufferer. As is the case with opium-eaters and chronic alcoholics, the medical profession is also responsible for making a large class of pelvic sufferers.—*Philadelphia Polyclinic.*

COPULATION PER URETHRA.—Three years ago I was called to treat a widow suffering with pain over the ovaries, and especially along the right Fallopian tube. On attempting digital examination the finger entered the bladder through the urethra! I felt chagrined, and endeavored to introduce my finger into the vagina, which was accomplished only with difficulty and pain. She had lived with her husband about seven years. Upon placing my finger in the meatus urinarius she said that was where her husband always entered, and assured me he had never entered the vagina. The finger entered the urethra readily, but not the vagina. She declared she was determined never to marry again, owing to the wretched life she lived with the man she loved. I told her the act naturally performed would not be painful and that I saw no reason why she could not enjoy the same, as well as other women. I have heard since that she was considering another marriage.—JONES, in *Medical World.*

The Medical Age.

Vol. XV. DETROIT, JULY 26th, 1897. No. 14.

Original Articles.

FATTY ILLS AND THEIR MASQUERADES.

(IV.)

BY EPHRAIM CUTTER, M.D., LL.D.

Regarding fat acids in man: It is an interesting subject to study whether the normal stearic, margaric, and palmitic acids, which are solid or semi-solid in the healthy human body, change their atomic composition by becoming oleic acid in fatty degeneration. The formulas are as follows: Oleic acid, $C_{18}H_{34}O_2$; stearic acid, $C_{18}H_{36}O_2$; margaric acid, $C_{17}H_{34}O_2$; palmitic acid, $C_{16}H_{32}O_2$. If, then, what we have been taught about oils is true, the fatty change is when margaric acid becomes oleic acid and adds one equivalent of C, while four equivalents of H are removed from stearic to make oleic. The change to oleic acid adds two equivalents of C to palmitic acid.

But what is this for protoplasm to do, when protoplasm makes the very complex substances, milk, bile, sweat, mucus, wax, spermatozoa, to name no more, from mammalian blood? Truly, as the Psalmist says, "We are fearfully and wonderfully made!" Has man ever made anything equal to the commonest epithelial cell? Incidentally remarking this to one of the greatest organic chemists in the world, he mentioned his surprise at the fact here stated; but he would not express an opinion, as he did not know all the literature of the subject. I wish all we physicians were as wise in the expression of sentiments when any new thing is brought to our notice.

Regarding fat in the white blood-corpuscles: This means of diagnosis has been used for many years in America, as a sign of impending or pending apoplexy; but the fat globules are very small and liable to be mistaken for entophytal growths of syphilis, eczema, chyme, etc., and may also be present along with the leucocytal fat. But fat in blood after meals is usually more outside than inside the leucocytes, which are unapt to absorb the post-prandial fat.

If fat in the white blood-corpuscles is found in conjunction with fat acids, one may be quite sure of the situation as one which, if not fully characteristic of fatty ills and their masquerades, marks the fact that they are coming on, and hence, as said before, the time to repent, reform, and repair has clinically come.

Usually there are but one or two minute globules of fat in one leucocyte, and situated away from the periphery. Sometimes they bud from the periphery. Their minuteness is no bar to their significance nor their detection. In very marked cases fat granules are found in all white corpuscles; in less marked in only a few.

Thrombi and emboli of fat are sometimes macroscopic or visible to the naked eye, and they also are diagnostic of fatty ills.

It is a good plan to study milk, oil, melted butter for fat appearances so as to be familiar with the foregoing.

Morphology of muscular fibers: In suspected cases cut through the skin and with a barb tease out (from the deltoid muscle, for example) a portion of the fiber; this will give at once a decided test of fatty degeneration under the microscope. If such degeneration is present, granules and globules of oil will be seen invading and replacing the fibrillæ; but if the degeneration has gone thus far it should show signs of its presence in the blood and urine, rendering this process needless.

Pigment matters: "Along with fatty deposits go amorphous finely granular protein matters and occasionally pigmentary degeneration in the form of brown, bronze, yellow, red, black, aniline-blue and emerald-green

bodies, together with amorphous or crystalline calcareous salts, as the carbonate of lime (calcareous degeneration)."* When these pigments are found in the blood, sputum, or urine, they must be regarded as in some degree indicating the presence of fatty degeneration somewhere in the body; they also indicate impeded portal circulation. The beauty of these pigments sometimes is great, and such exhibitions increase admiration for the human body as "a temple of the living God," which even in ruins is "beautiful within." These pigments in the circulation have been connected with rheumatism, which is "a gravel of the blood." They are probably excrementitious substances that the system would throw off if the normal functions of its morphological elements were not in a languid or interrupted condition. They are found in the pre-stages of disease, where the health is apparently good; are brilliant signs that trouble is brewing; and liberal doses of water are indicated.

Morphology and chemistry of the urine: In dubious cases study this daily for weeks if not months.

The writer forty-three years ago studied this morphology under Professor Josiah P. Cooke, LL.D., at Harvard Medical School, and ever since, and perhaps it may be allowed him to express surprise that: So few physicians pay close attention to the clinical morphology of the urine: That so many physicians get an apothecary or young medical student to examine urine for them: That they do not know how much they lose by these courses, and: That they will so carefully look after the one rill of the temperature of the sick, but neglect the small ocean (urine) of physical signs, which gives far better indications of the real condition of the patient. Both the temperature and the morphology should be used. Conventionalism aside, I know that the good intended by these presents will be defeated if the morphology and chemistry of the urine are ignored. I speak from experience when I say that but for my own daily personal study of urine I could not have presented these facts, nor have tried to inspire others with the hope that they will cure fatty ills.

* Micrographic Dictionary.

Regarding albumen, in greater or lesser degree: Doctor Stewart* says: "Albumen is not present in some cases of Bright's disease." I think, however, had he systematically examined such urine voided in the morning before eating, daily for weeks or months, albumen would have been found; but I do not affirm this of a certainty, not having seen his cases. Albumen should show by heat, nitric acid, picric acid. Albumen may be present without fatty degeneration or interstitial nephritis; cylinders are also found without albumen. Albumen in the urine may come from uterine reflex, from kidney or uterine congestion, from irritating drugs, from turpentine inhalation; but whenever it occurs alone, although it may not be diagnostic of degeneration, it certainly is a significant indication of something wrong. So long as remedial means will remove it duty demands to do so and not to let albumen run on to waste. Again, the source of this albumen is the blood. It exosmoses from the Malpighian bodies and epithelia of the kidney tubules, whose complicated and knotted structure renders a retarded or impeded circulation possible and easy; hence the favorite location of fatty ills, as well as the frequency of the occurrence of these ills, in such never idle organs.

Fatty epithelia in the urine: Epithelia are the chief autonomic agents of the production of urine; why they secrete urine is not apparent from their physical appearances. The protoplasm which does their work is not to be visibly distinguished from the protoplasm of other epithelia, which secrete wax in the ear, milk in the breast, or juices in the alimentary canal; each has its own life-work; they die, are thrown off, and washed away in the secretions; are described as pavement, cylindrical, and fusiform; are not very perishable, and retain their characters for a long time,—there is hardly any natural potable hydrant water but contains epithelia; they survive soaking, like hair, hoof, and nails, which are modified forms of epithelia.

Epithelia of the fattily degenerated kidney become subject to an internal deposit of fat in globules of varying sizes and numbers,

*Journal of the American Medical Association, December, 1893.

sometimes of awry protoplasmic shapes, which form conspicuous objects under the microscope. Focusing off and on, the play of color and shade will be found diagnostic. Where fatty epithelia are present alone—*i.e.*, without albumen and cylinders—in a suspected specimen of urine, I have seen them disappear very rapidly and not return after the treatment has been suspended. When present they show as well as any physical sign that fatty degeneration is somewhere in the body, provided that fatty food has not been eaten in excess, and vaginal epithelia that have imbibed casein or some other fat are not mistaken for nephritic epithelia. Not all the epithelia in the same specimen of urine are fatty; two or three individuals suffice as witnesses.

It should be remembered that epithelia are sometimes invaded by urinary salts, uric acid, oxalate of lime, carbonate of lime, urate of soda, triple phosphates, cystine, and so forth. When saline bodies are rapidly deposited in granular form they might be mistaken for fat; but the presence of these salts in the urine, and their different refraction of light, will help to make the correction. The subject of intracellular salts is beautifully illustrated in the parenchymatous cells of a common grape skin, where crystals of cream of tartar occur in large bundles of needles.

Casts of kidney tubes: These are best detected by a one-inch objective and ocular; it is well to have a large and uncovered cell 1½ inches long, ¾ inch wide, ⅛ inch deep. This may be made by cutting a parallelogram of sheet lead ⅛x3x1 inch, soldering same to common glass slide, by heating the slide, so that it will melt sealing-wax, on to its upper surface; the slide should then cool. The perforated lead plate is next heated hot enough to melt the sealing-wax into which it is embedded, and when cool is ready for use. If the steps have been properly taken a good job will result, because the principle of soldering is to heat the substance to be soldered up to the melting point of the solder, and not to apply the melted solder to colder surfaces that chill and will not coalesce with the solder. The advantages of this open cell are more celerity and larger field of observation than when a cover-glass is used; besides I have found that the cylinders will most readily escape from beneath the glass cover when the excess of fluid is removed by some bibulant, so that the cover-glass will not slide off when used on the conventional stage.

The urine collected before rising from bed in the morning should be allowed to stand a few hours, preferably in a conical vessel (wine-glass) or in a common bottle—specially where the suspect contains but few casts, and when it is clinically important to detect the pre-stages of the disease. This gives time to settle to the bottom, whence the pipette readily reaches and transfers to the slide, which must be placed on a horizontal stage, else the specimen will escape.—Those who prefer the conventional microscope can use the horizontal stage by placing the microscope upon a chair of the same height as that on which the observer sits; if the chair is not high enough, the microscope can be put on the microscope box or some other support; or one may use the J. Lawrence Smith chemical microscope, where the stage is above the objective; or the clinical stand may be used, mounted on a horizontal bar of wood a foot long and two inches square, provided with legs six inches long, and in the center a hole bored vertically, in which the tube of the stand fits tightly, but capable of movement. For forty-three years I have used an Amici stand, which gives a horizontal stage. There is no good reason why this Italian stage should not be conventional today. Folks follow fashions in microscopes as the ladies do in dress. I insist on the low power; the one-inch will detect cylinders after the one-quarter-inch objective has failed, because of its great transparency and shadowyness of the casts.—The ocean looks blue, but a tumblerful of sea water shows no blue color; thus low powers excel the higher sometimes.

The casts are cylinders like candles run in a mold. In the fatty degeneration of the nephritic tissues the fibrin and albumen of the blood come away so freely as to form molds, castings or "casts," or cylinders in the kidney tubules; afterwards they shrink, are washed away by the urine secreted, and to be detected as above described.

From a clinical standpoint the kind of cast practically makes little difference, as all are forms of fatty degeneration, subjects of the same causes and amenable to the same treat-

ment. If causes cease, Nature, furnished with good organized and organizable food, will end the casts, no matter whether hyaline, fatty, epithelial, waxy, etc.; the main thing is to restore the impeded or retarded functions.

Pseudo casts are also encountered in urine, and clinicians should know them: For example: Those which are more like carrots than the true straight broken-off casts: Those which sometimes have appended a long filament, usually coiled like a spiral spring. These false casts are thought to come from some of the many reentrant glands that open into the urethra, and from the spermatic ducts of the male urethra; they often occur along with the true casts, are abnormal, and usually disappear under the same treatment that carries off the true casts.

Amyloid bodies are substances composed of nitrogenous matter closely allied to albumen; are colored deep reddish-brown by iodine; occur in tissues and organs affected with waxy or lardaceous degeneration, as the small arteries, the liver, the kidneys, the spleen, the breasts. Though amyloid is considered by some as normal with brain substance, in my own opinion such is the first formed substance in fatty degeneration—in other words, amyloid is the first evidence of fatty degeneration of the kidneys when found in the urine, and it is the last to leave when the ill is recovered from. The physical appearances of amyloid bodies are like starch—hence the name, starch; they vary in size like wheat starch, and each has a hilus sometimes. No doubt common starch, accidentally present, has been mistaken for amyloid; hence it is important for clinical purposes that all vessels holding urine should be clean.

In doubtful cases the clinical morphologist should know whether there is no admixture of starch from the outside; this is the more needful because rarely is the morphology of the air examined without finding starch present. Voiding the urine into a clean vessel, and collecting the sample with a clean pipette, is generally sufficient. Another source of error is that sometimes the globar mother mucous cells found in the urine are distended by a glassy nacreous hyaline substance, which indeed may be amyloid, and has been found in the blood. Three hundred diameters is the best power to use for its detection.

Vegetable amyloid may be studied in the haricot bean and in the rhizome of sarsaparilla; it is regarded as a transition substance between starch and cellulose or woody fiber. In the urine it means fatty degeneration.

Free oil in urine is a somewhat startling sign of fatty ills, indicating that the tissues are so much broken down and in so advanced a stage of degeneration as to be changed into liquid fat or oleic acid; hence it is doubly important to eliminate all sources of error, and to avoid wrong conclusions.

Sometimes the vial in which the urine is sent for examination has been used for oil, though the patient may assert it was "washed clean." It is a fact that when oil of any non-volatile nature has been in a bottle for some time no ordinary washing will cleanse it; thus old castor-oil vials used for urine have bothered me much. Before coming to any conclusion as to the significance of liquid fat in the urine, it is best to be sure it is not foreign. Where it can be done the patient had best void the urine into vessels of known cleanness. I have known a pipette, previously used for oil, to nearly become a source of error.—It is surprising how much cleansing such a pipette needs; oil clings and is capable of the minutest subdivision. A late paper read before the Royal Institution, London, on "Foam," states that films of oil have been measured less in thickness than the one-millionth of an inch! The persistent fragrance of ointment found interred with mummies for three thousand years is another example of the minute subdivisibility of matter and its persistence. As oil is of less specific gravity than urine it floats to the top, but this is not always so, for I have found it at the bottom, though I cannot explain this.

Urinary catarrh may be mentioned as another source of error, for in conducting daily urinary examinations it has been found that one day albumen, fatty epithelia, kidney casts, one or all, would be present, while on the next albumen, casts, and fatty epithelia would be absent; that protoplasmic, filamentous, or Indian club catarrh (colloid) would be present; that on a third or later day albumen or casts or fatty epithelia would be present, and perhaps the day following only the colloid; that on a succeeding day the

urine would be normal; that afterwards the albumen, casts, and fatty epithelia would again be present.

This experience of varying conditions has been common with me for ten years and more. This shows a kinship or relationship between these catarrhs and fatty degeneration, a fact which is very interesting and practically useful. It shows too that probably both fatty degeneration and this catarrh may be dependent on the same cause, to wit, languid or interrupted cell and other organic functions. They both disappear under the same treatment, therefore when these catarrhs are found in the urine it is advisable to look for albumen, casts, and fatty epithelia. There is no doubt but the nervous prostration resulting from the colloid catarrh, superadded to the loss of force occasioned by the albumen, casts, and fatty epithelia, constitute a doubly powerful agent in the production of neurasthenia in all its most aggravated forms,—for example, the so-called cases of heart failure.

In observing urinary catarrh it is a good plan to let the urine stand over night or for twelve hours before studying; to pipette from the bottom of the fluid; to employ a large cell on the horizontal stage; to use a one-inch objective and ocular; to study at least six successive specimens for six successive days, one each day, before deciding the diagnosis. It is true that urine just voided will generally show this morphology, but most of the subjects of this catarrh are neurasthenic, curiously self-possessed, with the idea that they "know it all;" are usually chronic cases, much disgruntled with the shortcomings of the medical profession, if they do not damn it outright; if one is going to have any hold on them afterwards (as he ought to, to cure them) he must be very careful to let them understand he is not doing any guesswork; indeed, such a slow course is really best for the attendant, because the natural history of the case is thus obtained. Sometimes this rapid shifting of the signs in the urine from normal to abnormal and *vice versa* makes matters unpleasant for the physician. For example, a country practitioner found albumen in the urine, and, as do many examiners, without looking for the casts and fatty epithelia, he diagnosed Bright's disease; next day he sent him to consult with a city expert who found no albumen, and chided his country brother for his ignorance and presumption. Probably both were correct, and it was one of these alternating cases of albuminuria and catarrh! In my opinion they are very commonly met with and masquerade under the names of many formidable diseases.

I may add that urinary catarrh is not conventionally regarded as a significant physical sign of disease. In justice to myself and others I must aver that I have found urinary catarrh to be the only marked symptom in many cases of neurasthenia, and the cases were cured when the catarrh was removed. I feel justified in placing a clinical importance on this colloid catarrh, and not to let go of the clew it gives to relieve suffering. As to disagreement, it is well known that at the Berlin International Medical Congress, 1890, the most celebrated physicians differed about ether: Doctor Wood was called from Philadelphia, four thousand miles, to tell how to give it, though used successfully for more than fifty years in millions of cases by thousands of professionals! Then how can it be expected that all would think alike on this subject of urinary catarrh, so little known, requiring technical skill to detect and understand, because latent, insidious, changing, and eluding the highest powers of the microscope?

Fatty epithelia can be artificially produced (as by gynæcologists) by placing cacao butter, lard, or vaselin in the vagina, and on the morrow examining the morphology of the discharge. Epithelia imbibe fat by contact, and this should always be remembered when making diagnosis of fatty ills in women. Vaginal epithelia are common in the urine of the female. The same is true of fatty matters applied to the skin; and dermal epithelia are flatter, denser, drier, and more wrinkled than vaginal. Recently I detected oil in the urine of a patient, and found it came from a daily bath of olive oil.

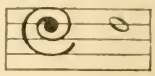
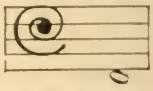
The macroscopic physical signs are open to the unaided vision; but are not to be depended upon always, at least not until corroborated by the microscopic. A drunkard's nose, carbuncular, enlarged, knobby, greasy, whitish pale, is perhaps the most prominent macroscopic physical sign of fatty

degeneration. Other signs are œdema of eyelids, dim vision, dilated pupil, lack of bodily or mental vigor, green ground glass pupil, arcus senilis, weak stridulous voice, insanity, old age, etc.

Fatty degeneration is very common in persons over fifty years of age; and fatally complicates pneumonitis and other diseases because it removes a portion of the power of vital resistance. It is found in society which mainly lives on starches and sugars, because social ethics decide that white flour bread and sugar foods, not to mention confections, are the proper aliments for people to subsist on, for the reason that they are æsthetically beautiful to the eye and palate. So long as people live to eat, and do not eat to live—that is, so long as sugar is advocated, even by chemists (curiously); so long as Count Rumford formerly, and the French people now, regard as good food all that pleases the palate; so long as the chemical, physiological, pathological, histological, kinetic, and thermal aspects of food are practically so completely overlooked and ignored by the ethically æsthetic; just so long will there be an abundance of fatty degeneration everywhere among civilized men. To offset all this may be employed winter and summer migrations on land and sea; physical bodily exercise; bicycling (moderately); fishing and hunting in the pure open air of desert places; avoidance of carbohydrate liquors; promotion of downward peristalsis; prevention of fermentation in food eaten; proper expulsion of intestinal and stomachic gases; normal mental and moral activity, etc. These alike help to ward off and to migrate fatty ills which come from allowing the love of the beautiful to determine the selection of foods to the exclusion of other more important selective standards.

The heart's sounds are muffled, softly pronounced, and weak in fatty degeneration; it is as if a thick woolen blanket intervened between the ear and the heart. The normal thrill is of a quality like that of the deltoid muscle in action, but in fatty ills this is not transmitted to the tympanum, simply because the fatty interstitial fibrillæ dampen the sounds by their non-conductivity,—the fatty fibrillæ act like the felt dampers of the pianoforte, and they substitute the number of fibrillæ able to contract and give forth sound. As the diseased fibrillæ are replaced by normal fibrillæ, so the loudness, clearness, and penetration of the heart sounds increase, giving various grades of intensity from almost inaudibility. Thus auscultation becomes a kind of measure wherewith to gauge the improvement, and on the other hand a gauge of the devolution or retrogradation of the case.

Some may demand that this be proved by an autopsy, and so it might if we were veterinarians, who slaughter their bovine patients to see if they are diseased, and sometimes find five out of thirteen condemned tuberculous cases healthy; but as this is impossible with human patients medical men must be content to abide by the entire disappearance of all physical signs of fatty degeneration as already detailed, and be satisfied with the restoration of the fatty-ill patients to perfect health.

The auscultation of lungs necrosed and breaking down by fatty degeneration differs not from the auscultation of tuberculous lung necrosis; indeed the two may be found together. The morphology of tuberculous lung blood is the great means of distinction between lung tuberculosis and fatty consumption or necrosis of the lungs. The percussion signs are the same as in tuberculosis of the lungs. If one places the keynote of normal chest percussion at F, fourth line of the bass clef  then percussion of complete dulness may be represented as F in first space below bass clef, *i.e.*  and varying between these notes according to the amount of density of the lung tissue under observation.

The dulness on percussion of a fatty heart is not so distinct as the dulness of cardiac muscular hypertrophy.

Over cavities formed by fatty necrosis of the lungs the percussion will be as if the cavities were tuberculous.

Fattily degenerated tissues pit on pressure, as in œdema of the legs, but the pit is of briefer existence and there is more resilient resistance to the finger. The resilience to the touch given by fattily degenerated tissues is not that of healthy tissues. This can be

learned best by actual trial of healthy and obesic tissues. It should be remembered that fatty tissues vary from a normal tilting elastic resilience, when the margaric acid fat is solid as it should be (somewhat like a stearine candle), to the greasy, oily, lardaceous, unsolid feel of liquid fat under the tissues that is of oleic acid. It seems almost incredible that margaric acid in human fat should change under ordinary temperatures to oleic acid fat, but clinical experience authorizes this statement.

Mensuration is the same as in tuberculosis or other ordinary disease.

In treating fatty degeneration the principles are general and special and particular. Regarding the former, it is "Nature that cures" if allowed the opportunity; that is, the vital forces, actual or potential, operate to restore normal tissues in place of the fattily degenerated.—This doctrine I endorse from facts occurring within my own personal knowledge for many years. To accomplish this the causes of fatty degeneration must be stopped. If these causes are the languid or interrupted functions of the tissue cells, such functions must be made active and constant. In case it is a ligature that impedes or interrupts functions by pressure (as when fatty ills are caused by a string tied around a limb) that ligature must be removed. The cell functions then may and generally will be restored, because Nature, furnished with a proper blood-supply, will have a chance to work, while a ligated limb cannot have normal exercise to quicken circulation. If the cause is from paralysis occasioned by too much gas in the alimentary canal, arising from a fermenting diet, then this diet must be stopped. In this line comes the withdrawal of foods, especially drinks containing carbonic acid gas, Seidlitz powders, soda-waters, champagnes, sparkling liquors, etc. Lately a lady of sixty-five years, whom I knew to be in the fatty-degeneration time of life, suddenly and unexpectedly died in the arms of her son, and the cause of her demise was given as "heart failure" (a result, not a cause). Her heart had troubled her somewhat, though she was not thought to be ill. One evening she had some indigestion (which means excessive production of CO_2, gas) in the stomach. For relief she took a Seidlitz powder, which also developed CO_2. It was an unwise procedure, inasmuch as she was already embarrassed with CO_2 enough to distress her weak heart! It was late at night, and she had retired. Fearing that her son had gone to sleep down-stairs, she arose, put on loose clothing, and went down; and when she came to him she would have fallen dead on the floor but for his arms! I did not see her after death, but it is probable that the heart was fattily degenerated, and that the CO_2 combined with the extra exertion to rise from a recumbent posture was a sufficient cause of death. Again, at a club annual dinner, on a Saturday evening, Doctor Blank was present as well as myself. On Monday morning the Doctor was found dead in bed of "heart disease." Liquors charged with CO_2 were drank by the deceased at this dinner; and although fifty-two years old, he appeared more senile than some at sixty-two. If I am correct in assuming that he lived well at this and other clubs, then it is quite possible his heart was undergoing fatty degeneration, and was upset at about 2 or 3 A.M., which is the usual time for such deaths, because the CO_2 accumulates to its maximum about these hours.

These cases are mentioned as they were close to my knowledge, and hence excite (laudably, I think) an intense desire that the lessons taught by these sudden heart-disease deaths should not be lost on myself and those I can influence. At the said dinner I drank water only, thus making myself so uncongenial to a Yale alumnus next to me who drank wine that he changed his seat. I suppose I was thought by him no fit companion; but I experienced no discomfort from my abstinence, but on the contrary my digestive organs next day were greatly at peace, and I ran no risk of upsetting my heart. I belong to a family where most of its paternal males died of heart disease at about the age of sixty years (my own age). Had I not known what I here assert regarding heart disease, I think I should have died in like manner before this, especially as I have reasons for believing that my heart is hypertrophied.

To reiterate: Those fed on fatty foods to excess are prone to become fattily degenerated; hence it is a general principle of treatment that fatty foods should be avoided.

Cream, milk, and butter are the least objectionable, but even they will sometimes keep albumen in urine. Suppose a patient with fatty ills has been relieved of albumen, casts, and fatty epithelia in the urine, and takes cream or any other fatty food, and afterward the albumen, casts, and fatty epithelia are again found in the kidney secretion, or fatty white corpuscles and oil are found in the blood, or free fat in the fæces—are not these sufficient clinical reasons for the abstinence from such foods? This very experience happened recently in a patient suffering with consumption of the bowels and fatty degeneration.

No clinician can expect to handle fatty ills successfully unless versed in the micrographic study of the above morphologies. No matter how well the patients appear, the case is not complete unless the physical exploration shows normality in the form elements of liquid tissues.

EXTENSIVE DESTRUCTION OF SOFT PARTS FOLLOWING LABOR.

BY THOMAS S. BULLOCK, A.M., M.D.

With the discovery of the straight forceps in the middle of the seventeenth century by Paul Chamberlain, and the subsequent improvements introduced by Smellie, consisting of the pelvic curve and the English lock, began a new era in the practise of obstetrics. Since the knowledge of the use of the forceps has become general, cases of extensive destruction of the soft parts of the mother have become very rare. One cannot but be struck with this if he compares a work on gynæcology of recent date with one written even ten years ago, for in the latter hundreds of cases of vesico-vaginal fistulæ are reported in detail, while the former merely gives a brief description of the technique of the operation for relief. Nowadays, unless some serious cause of dystocia exists, fistulæ are seldom seen, except in cases which have been in charge of a midwife and then reluctantly turned over to the doctor.

About eighteen months ago Doctor Butler was asked to perform Cæsarian section in a case which the attending physicians were unable to deliver, but the unsanitary surroundings premised an almost inevitable fatal result. Thinking delivery might be accomplished *per viæ naturales* he asked me to see her with him. She was found to be a negro woman, aged forty years, primipara, who had been in labor seventy-two hours. Examination revealed a very large head impacted firmly in the pelvis. As strict antiseptic precautions as possible were observed. The bladder had been emptied prior to use of forceps in each instance; and when the latter were applied little difficulty was experienced, though traction made it at once apparent that delivery by this method was impossible.

As the fœtal heart sounds could not be heard, craniotomy was determined upon; but this to our surprise availed very little. The cranial bones were next carefully removed, one by one, the soft parts being protected by the left hand of the operator; a fillet, consisting in this instance of a piece of clothesline, was passed under the posterior shoulder, and after considerable traction an enormous male fœtus delivered, which unfortunately was not weighed. The only apparent damage was an incomplete laceration of the perineum. There was no escape of urine following extraction of the child. The mother was immediately given an intra-uterine douche of 1-to-2000 bichloride solution, followed by a douche of plain hot water. I did not see the patient again for several months, but was told by Doctor Butler she had quite a tedious and unpleasant convalescence.

Some months after the operation I was again asked to see the patient and assist in closing a vesico-vaginal fistula. When the patient was anæsthetized no cervix uteri was discoverable and the vagina appeared very shallow. In searching for the uterus the finger, without force, easily separated recent adhesions, and the cul-de-sac was entered. A speculum was then cautiously introduced. No vestige of the uterus could be found, and coils of intestines filled the vaginal vault; quite a large vesico-vaginal fistula was seen, through which the finger readily passed into the bladder; the patient in fact was in a condition similar to one on whom a vaginal hysterectomy had just been performed.

It was deemed best to wait for the peritoneal cavity to become walled off before attempting to close the fistula. A recent

examination revealed this had been accomplished. She attends to her work as before and is only troubled by the constant escape of urine. Several large tufts of exuberant granulations are scattered over the vaginal surface.

Since her delivery the woman never menstruated until the last three months, during which, as she declares, she has had a monthly loss of blood, in each instance lasting three or four days. To-day no part or remnant of a uterus can be found. An attempt will be made to close the vesico-vaginal fistula at an early date. It is possible that the loss of blood proceeds from the surface of the granulations.

Thos. Addis Emmet reports two cases in which the whole uterus, vagina, and entire tissues except the periosteum behind the rami and pubes had sloughed away, and no relief of the resulting fistula was possible on account of lack of tissue. A fistula of the ureter opening into the top of the vagina or the uterus, resulting from prolonged pressure, has also been reported by Henry Morris.

As to the cause of such loss of tissue it is generally believed the damage is commonly inflicted by impaction of the child's head, causing an obliteration of circulation in the soft parts of the mother, and subsequent sloughing. Emmet says that half an hour of such obstruction may cause most extensive loss from sloughing, and reports a case in illustration; the labor lasted only eight and a half hours, yet the sloughing was very extensive. He declares he has never met with a case of vesico-vaginal fistula which could be shown to have resulted from instrumental delivery; the entire weight of evidence is conclusive it is the result of delay in delivery. Since the loss is not in proportion to the length of the labor, and since it is impossible to judge of the degree of impaction, there is but one safe course to adopt, viz., as speedy a delivery as possible.

Vesico-vaginal fistulæ occur most frequently from difficult labors in which the fœtal head is arrested in the lower part of the parturient canal; and necrosis takes place from long-continued compression of the soft structures, the vesico-vaginal wall being pressed between the fœtal head and the pelvic bones, and the injured structures subsequently slough, leaving a fistulous opening. Lacerations occurring during forceps or other instrumental delivery seldom invade the bladder. More than ninety per cent. of vesico-vaginal fistulæ result from neglected labors, and *not* from measures adopted for delivery. As long as the head recedes after a pain the patient is in no danger, notwithstanding labor may be prolonged. The patient is jeopardized when the fœtal head becomes stationary, and the damage to the soft parts of the mother depends somewhat upon where and how the head is impacted. When the head no longer recedes it is proof positive that the soft parts of the mother have lost their natural resiliency, and that the labor should be speedily brought to an end.

Nearly two-thirds of all injuries of this class occur in first labors. The fact cannot be questioned that after impaction has taken place far more damage will result from leaving the head to be forced out by uterine action than would occur from any form of instrumental delivery that may be adopted. These facts should serve to remove much of the prejudice which still exists against the use of forceps. While it cannot be questioned that instruments are often resorted to without urgent necessity, the evil consequences of a protracted labor cannot be ignored. A vesico-vaginal fistula cannot occur, says Emmet, as a consequence of a slough if delivery is accomplished as soon as the head fails to recede after each pain.

An important ætiological factor is of course a large fœtus; about fifty per cent. are still-born. When impaction takes place and the fœtal heart sounds cannot be heard, it is advisable to terminate the labor by craniotomy without attempting delivery by forceps.

Louisville, Kentucky.

FOREIGN BODIES IN ALIMENTARY CANAL OF CHILDREN.*

BY M. S. WOODSON, M.D.

By "foreign bodies" I mean any substances appearing in the alimentary canal that are not or cannot be digested. Many substances are

* Read before the New Hampshire Medical Society.

per se indigestible, such as pebbles, coins, buttons, etc.; others under ordinary circumstances digestible are rendered indigestible by the conditions of the alimentary tract,—thus articles of food that are ordinarily wholesome may become noxious irritants.

The matter of diagnosis in a small child who cannot talk is sometimes a serious one. If it is known to have swallowed something that is of itself indigestible, or to have eaten freely of some questionable food, a diagnosis can usually be made at once; but the great difficulty arises when the child has taken some such substance into the stomach unknown to parents or nurse. In these latter cases it is only by closely watching the symptoms and reasoning from deduction and exclusion that a correct inference is had. It frequently happens that smooth, insoluble bodies remain in the stomach or some part of the intestines a long time without either causing obstruction or any considerable irritation.

The first symptoms are usually general malaise with signs of indigestion, sometimes vomiting, either diarrhœa or constipation, elevation of temperature, a quick, jerky pulse, great nervous disturbance, taking either the form of stupor or excitability, intense thirst, a tongue covered with a thick, brown coating which is apt to come off in patches, foul breath, and a peculiar aspect that can only be learned by experience. Now, it is well known that all these symptoms often accompany other diseases; hence the difficulty of a positive diagnosis.

If the case is a severe one and the bowels move at all, patches of mucus and streaks of blood will soon appear in the stools. Generally more or less pain referable to the region of the epigastrium or umbilicus is complained of; there is more or less distention of the bowels, whether they move or not; and commonly some tenderness over the abdomen, but rather less than would naturally be expected from the severity of other symptoms.

Vomiting is a frequent symptom, especially if there is obstruction. If the foreign substance is not removed and the other symptoms relieved, delirium, coma, or convulsions frequently ensue. The prognosis is grave in proportion to the length of time the irritant remains in the alimentary canal, the structural changes that have taken place, and the effect on the nervous system.

The principal dangers are ulceration and perforation, hæmorrhage, gastritis, enteritis or peritonitis, and meningitis; frequently two or more of these will be found simultaneously. The great majority of cases where children swallow buttons, pennies, etc., require no treatment whatever; it is where the substance becomes lodged and results in damage and danger that attention is demanded. In most cases a simple laxative will dislodge the offending substance and cause it to be discharged in the stools with little or no constitutional or local effect.

Occasionally some object will become lodged and resist all efforts to expel it. This may be caused by the size of the bolus, by the muscular coating of the intestine being paralyzed, or by some sharp body (as a fragment of bone, a pin, or a tack) catching in some of the rugæ of the bowels and becoming firmly fixed. In the latter case, if the diagnosis is certain, an operation is demanded as early as possible. Care must also be exercised not to confound an obstruction from some cause outside the gut with an obstruction from some substance within.

Treatment depends largely upon early and correct diagnosis. This having been assured I believe there is no remedy so likely to give us good results as the free administration of castor oil; it is a prompt evacuant, usually acting in about four hours, and it is lubricant, emollient, and facilitates the mechanical passage of the foreign body, besides causing no serious griping or other undesirable symptom of itself.

In the great majority of cases the cause will be removed in the first or second discharge from the bowels. But the stools should be carefully examined, a very good way being to pass them through a sieve or colander.

Other treatment must depend upon symptoms. Generally external applications will be needed to keep down the inflammation and to relieve distention from gas. These applications may be either hot or cold, according to the conditions of the individual case and comfort of the patient. Not infrequently injections of spearmint, turpentine,

or other volatile aromatics will be found useful in causing expulsion of gas. Antiseptics by the stomach may also prove valuable. If there has been sloughing of the mucous and muscular coats of the intestines, frequently repeated doses of bismuth may be employed.

The nervous symptoms should always be watched, and if the offending substance has been dislodged and pain continues, full doses of morphine will be indicated.

In cases of constipation it is better, if possible, to avoid opium before the expulsion of the foreign substance. Frequently it will be found necessary to sustain the patient by stimulants, such as aromatic spirit of ammonia, ammonia carbonate, alcohol, etc. At the same time the patient should be kept quiet in bed in a well ventilated room of a temperature from 65° to 70° F.

Frequently no food can be retained or tolerated by the stomach; in such cases strength may be conserved by rectal feeding.

When the irritant has remained within the body for a considerable time and produced profound effects, the sloughing of the mucous coating is generally extensive, and convalescence consequently much slower than where the irritant is expelled soon after being swallowed. It occasionally happens that the bowels are left in a permanently weakened condition, rendering the patient more than ordinarily susceptible to various intestinal troubles.

Case 1.—An active, healthy boy three years of age was taken with vomiting, fever, pain in bowels near umbilicus, great thirst, delirium, coma. A foreign body in alimentary canal was suspected, and on consultation it was decided to give castor oil. Twenty-four hours later a very large Lima bean was passed. A long and serious illness followed, during which the child was unconscious for many days and passed large quantities of mucus and some blood from bowels. The history, as learned from the parents, was: Seven or eight weeks previous the child had been given a dish of mixed beans to amuse him. He had never any opportunity to get at beans from that time until his illness, consequently the offending body must have remained somewhere in the alimentary canal all this time.

Case 2.—A healthy boy aged three and one-half years was taken with pain in abdomen, fever, and convulsions; at first was constipated. Laxatives, though they operated, left the bowels continually loose, and some blood and mucus was observed in the stools. Finally castor oil was administered, which brought away a large amount of undigested peanuts; they were dry, packed together in hard masses, and seemed as fresh as when first eaten. The parents say this child ate peanuts nine days previously, but none since.

Case 3.—A healthy boy of three years was taken violently ill during the absence from home of his father. A similar train of symptoms appeared as in the two former cases, and the management of the case was also similar. On the sixth day he passed a pebble about three-fourths of an inch in diameter, after which he improved steadily.

Case 4.—A rather delicate child of three years was taken ill, his history being the same as the foregoing. After ten days' illness he passed a large amount of dried English currants that he was known to have eaten sixteen days previously.

Case 5.—A nervous, active boy of two years accidentally swallowed a penny which lodged at the lower end of the œsophagus and did not enter the stomach; was in great distress. I tried to pass a probe and push the penny into the stomach, but owing to his extreme nervousness I was unable to accomplish the act. Recalling the mechanism of emesis I administered an emetic, thinking that when the œsophageal orifice opened the penny would fall into the stomach. This really occurred, and twenty-four hours later the penny was passed from the bowel without further inconvenience.

Case 6.—A young man while eating chicken pie accidentally swallowed a fragment of bone which remained somewhere in the alimentary canal without causing any inconvenience for forty-five days. He then experienced extreme agony and likewise recognized the cause of his suffering. The bone had become firmly lodged in the upper part of the rectum. After dilating I was able to dislodge it, and found it to be one and three-fourths inches in length. No serious results followed.

West Lebanon, New Hampshire.

PUERPERAL SPASMS.

BY J. A. M'COMB, M.D.

Puerperal spasms more often occur in women of short stature with their muscular systems well developed than in the tall and spare women; also more frequently in primi-

paræ, especially those of considerable age, and in twin pregnancies. Some have claimed that pressure of the gravid uterus on the pelvic nerves gives rise to the spasms. The Traube-Rosenstein theory holds that the general œdema affects likewise the brain—by compression retards circulation and induces acute anæmia which, if affecting the motor centers, results in eclampsia. The theory more generally accepted, and rightly I think, is that of uræmic poison. This arises from lack of excretion, assisted perhaps by constipation.

While there are differences between an ordinary epileptic seizure and the puerperal spasm there would be difficulty in differentiating even should one see nothing but the spasm. However, the condition of pregnancy with the peculiar oscillation of the eyes ought to lead one to a correct conclusion. The spasmodic movements are first clonic, then tonic, lasting from fifteen to thirty seconds, at times longer, and recur at varying intervals. Usually the woman does not regain consciousness, or becomes only partly conscious, between the attacks. They may occur at any time during the pregnant or puerperal state, but usually during the last months of pregnancy, including labor.

The prognosis is always grave, though under favorable circumstances one has a right to expect much from treatment. In making a prognosis it is necessary to consider the strength of the patient, her general surroundings, and the period at which spasms occur; for a woman seized with convulsions a month or two before confinement will more likely die than one during parturition or in whom the attack follows a normal labor.

One may theorize very learnedly as to the cause, may foretell with accuracy the result, but if he fails in treatment the woman will pass into a haven of rest from whence no traveler returns. I hold prophylactic measures of first importance. The peculiar headache, the flashes of light, the constipation, the lack of urine, the unusual degree of œdema about the feet and ankles, and puffiness underneath the eyes, are danger signals which the wise will not be slow to heed. A few doses of calomel followed by a saline mixture at this time will quickly relieve the unfavorable symptoms and the woman pass through her confinement without trouble.

Allow me to call special attention to the condition of constipation during pregnancy, which I regard as the underlying cause of many a slow "getting up" and very greatly predisposing to eclampsia. Most women eat well during the last months of gestation, hence it is essential the practitioner is assured the alvine discharges are proportionally large. The amount of urine voided and the character thereof ought to be investigated in every pregnant woman. I am in the habit of examining the urine of the woman I expect to deliver at least once each month during the last three months of gestation, and consider this a duty owing to every patient—one which is not very faithfully discharged among country physicians. When I find the amount of urine less than normal, with a specific gravity constantly below 1010, I put the woman on treatment without waiting for evidences of albumen.

When an eclamptic seizure occurs before parturition the judgment of the medical attendant must dictate whether labor shall be brought on or not. The cases I have seen before confinement have all been followed in a few hours by labor. When they come on during labor the woman should be fully anæsthetized with chloroform (not ether) and delivered of child and placenta as quickly as possible. The leading indications to me are elimination in every way possible, and to the greatest degree obtainable short of actual exhaustion; also to lower arterial tension and allay nerve excitability. Pilocarpine I consider the safest, quickest, and most certain of all drugs in eclampsia in efforts to eliminate the uræmic poison, and it at the same time relieves blood-pressure and the nervous excitability. A drug almost without a rival in lowering arterial tension alone is veratrum viride. Morphine is always a sedative to the nervous system. Hence the remedies on which I depend are: Pilocarpine hypodermatically, in one-thirtieth- to one-twentieth-grain doses, repeated as frequently as the strength of the patient will bear until kidneys and skin act well; tincture veratrum viride (Norwood's) in thirty-minim doses under the skin, repeated in thirty or sixty minutes, unless the pulse falls to 70 or less (let me suggest that the virtue of the veratrum lies in its power over the pulse-rate, and until that is brought

down enough has not been given, no matter how many drops have been taken); morphine in doses large enough to bring sleep.

This line of treatment with good and careful nursing has given satisfactory results in five out of six cases.

One fatal case I had was peculiar. The woman was delivered by an old woman, had a quick and easy time, and was up on the fourth or fifth day. Late on the afternoon of the eighth day she was seized with spasms. The spasms were controlled, but she passed into a typhoid condition, and on the tenth day after the seizure died from sepsis. In this case there was absolutely no excretion of urine for twenty-four hours before, nor for a like period after, the onset of the spasms. I gave this patient no veratrum viride on account of the asthenic condition. This is the only case of which I have any knowledge occurring eight days after labor.

Lebanon, Missouri.

HOW WE EAT—AND THE ECONOMICS OF FOOD.

BY C. C. MAPES.

The constituents of food have not only to supply energy to the body, but they must further be capable of prior conversion into the very substance of the animal body, into its very "flesh and blood."

"What shall we eat?" has been the subject of considerable discussion in medical and other literature, but very little mention has ever been made of "How shall we eat?" The former, for obvious reasons, is oftentimes quite beyond power of control, while over the latter perfect jurisdiction is had. As to the choice of food, where it is possible, more will be said later.

When is considered how the average human being eats, is it any wonder we are a nation of dyspeptics? Meals taken at irregular and unusual hours; food simply cracked, bolted, and "washed down" with ice-water, hot coffee, iced tea, etc.; an insufficient quantity ingested at one meal, and too great an abundance at the next; a full meal crowded into the stomach within a space of three to ten minutes instead of the regulation three-quarters of an hour or longer, the teeth and salivary glands being entirely overlooked or forgotten in the process; instead of a good laugh and a short rest, or better still a *siesta*, as dessert, stomachs are overloaded with highly-seasoned condiments, ices, etc., etc.!

For perfect digestion food must be thoroughly masticated and intermixed with saliva before being swallowed,—not simply broken and "washed down" with fluids of various kinds. The teeth, therefore, form a most important part of the digestive system, and should be kept in good order,—a matter which is too often overlooked or neglected. With the present perfection of dentistry, and the nominal cost of artificial dentures, there is little excuse for such condition. Many cases of obstinate and persistent indigestion (so-called dyspepsia) have been quickly and permanently relieved by correction of odontological deformities or ellipses, errors of diet and manner of eating,—supplemented perhaps by the administration of some amylolytic ferment, such as Taka-Diastase, to aid in the process of digestion until such time as Nature has restored the normal equilibrium.

When food has been properly masticated, thoroughly mixed with the secretion of the salivary glands, and thereby reduced to proper consistency, it is passed on to the stomach to be acted upon by the gastric juice, thence to the intestines to be further acted upon by the secretions of the pancreas, the glands of Brunner, and the biliary apparatus.

Rapid eating, ingestion of food at irregular and unseasonable hours, eating of great quantities of farinaceous foods, "washing down" of the foodstuffs with fluids, drinking of large quantities of iced fluids at meals, eating of icy foods, the partaking of inordinate amounts of sweets, acids, etc., are prolific causes of the so-called dyspepsia from which a large proportion of people suffer.*

In a paper on the "American Disease," published in 1893,† appears the following:

Those who anticipate the description of some new malady by its morbid anatomy will be disappointed to learn that the eye of the necroscopist has not penetrated its mysteries, nor the microscope revealed the insidious germ that numbers its victims by the thousands. One studies its rav-

* It is estimated that the world's cucumbers are worth $8,000,000 annually to the gardeners who raise them, and twice that sum to the doctors and druggists.

†Doctor J. W. Irwin, *American Practitioner and News*, vol. xvi, No. 3.

ages only, and reaches conclusions which to the observant student must cause the most serious thought. It cannot be expected that mental and physical endurance in the offspring of such parents will rise above that of their ancestors. This insidious germ has escaped the vigilance of sanitarians, whose mission it is to prevent disease by exterminating its cause. "Man that is born of a woman is of few days and full of trouble;" and in these words will be found the key which unlocks the mystery of this insidious malady. In the great struggle for the survival of the fittest is seen not alone in the marts of commerce, but in the learned professions and among artisans and men of every calling, the greed of wealth. Not content with food and shelter and protection against the infirmities of old age, men wreck and ruin their frames; all drink from the same fountain, the waters of which contain a slow but sure poison, bringing suffering and premature death to those who quench their thirst in its deceptive waters.

A patient, the subject of this malady, applies for medical advice. He has passed the age of forty-five years; he may be younger, but he looks much older. His shoulders are stooped, and as he walks he seems laden with care. His brow is wrinkled, and his face wears an expression of anxiety. He is restless and can hardly wait for an opinion. Scarcely is the inquiry into his physical condition begun than comes the query, "Doctor, what is the matter with me?" Or, if he should be a man of observation, he will often give his opinion in advance, "I know my stomach or my liver is at fault." As the patient enters the consultation room, is seen in the restless eye and anxious tread the evidences he has caught the contagious affection, and the disease of wishing to be foremost in the ranks of wealth is for the time his most eager ambition. He has not yet learned that the increase of wealth beyond that which provides food and shelter and a competency against old age increases his responsibilities and makes the burden of his cares much greater, and the wear and tear of his nervous system to correspond.

This patient as he prepares for the business of the day breakfasts on beefsteak, ham, eggs, and perhaps a slice of bacon; hot rolls or biscuits and coffee complete the meal; and as he bolts these viands the morning paper lies before him. His eye shifts from one column to another: the market reports of various nations are quickly in review; the pen picture of a tragedy or a prize fight which occurred a few hours before in Egypt, Germany, San Francisco or New York is scanned. While the eye is thus engaged the mind is silently engrossed with the cares of business which the day is sure to bring. Perhaps some bill has fallen due, and provision is not at hand with which to satisfy his banker. Again, the price of groceries may have changed a fraction of a cent, or some debtor assigned. These and often graver thoughts share the powers of the nervous system, while the increased processes of repair and destruction are going on.

Breakfast over, the work of the day begins. One care crowds in upon another, and he finds himself stimulated by the anxieties of the moment. The nervous system has reached the highest state of tension, and this condition lasts until time for lunch arrives. Refreshments are taken with the same rapidity as in the morning, and his work is resumed. Evening comes, and he goes home tired, careworn, hungry. The evening meal is freely partaken of, and a business chat or a business meeting or plans for the next day are indulged in —amusements seldom intervene—and then to bed. The mind is still at work; some new idea or old one keeps it in motion, and he tosses about on his downy pillow until "tired Nature seeks repose in balmy sleep." He is indeed fortunate who has not to call to his aid some form of hypnotic by which he may for a short time seek oblivion. Perhaps dreams disturb his slumbers, and he awakens to learn that his stomach is not a good machine; that digestion is slow, and attended with much discomfort. The morning comes to find him partially refreshed by the night's repose, and he is ready to resume the work of another day.

Thus engrossed with the affairs of business and often personal cares he goes on and on for years. His summer holiday in the mountains or by the sea is often not a holiday at all. The mind never rests from business; so well is this matter understood by the wide-awake railroad official that, while in transit from place to place, he receives the account of the day's doings in the commercial world at the way stations. Each palace car is provided with clerks and accommodations by which the busy man can conduct any sort of business as the train speeds along at the rate of fifty or sixty miles an hour.

Sooner or later this good business man finds his health is failing, but he seldom stops to consider the cause. Not infrequently his infirmity is ascribed to malaria or heart failure, and after a few unsuccessful attempts to regain his wonted vigor the love or anger of the gods may be accused as the cause of all his troubles. . . . This patient has gone on in search of health, and at last arrives at the conclusion that when he becomes young again he will obey Nature's laws.—But he does not grow young. Very soon a surprise comes to his friends; some of the prevailing troubles have caused him to prematurely pay Nature's debt, and his place in the Stock Exchange is vacant.

This is the history of the patient. Now examine his internal organs: His heart is weak and his stomach has gone wrong; the liver has failed to do its work—although frequently urged thereto by some cholagogue,—it has become enlarged, or, on the other hand, is atrophied; the kidneys are not in a proper state of health, and the waters of numerous mineral springs have been tried in vain; the brain has become quite sluggish, and memory has been playing vagaries with the patient; the spinal cord has gone wrong, and the reflexes are out of order, —parts of the body are cold, clammy, and almost

lifeless; those faculties which men must revere have become enfeebled, and no longer do their owner's bidding; apprehension that he may soon have to leave the scene of labor, as evinced by failing manhood, is his chief companion.

Miserable man! He has become the patron of eminent specialists, and all have found dreadful disease; but a slight difference of opinion of his numerous advisers has caused him to seek further, and no doubt hope for speedy relief. The brain, nerves, muscles, and every internal organ suffer at every bearing. This, then, is a brief, imperfect picture of the American Disease, the germ of which may be the Almighty Dollar.

Can one prognose for this patient that he will regain his health? No; it is too late! The case is not recent, but chronic; the germs of his trouble have been at work for years. The best that can be done is to nurse his failing powers for a short time. Advice only is available, for medicine cannot cure him.

Other authors have practically covered the same points in papers upon dyspepsia, gastric indigestion, diseases dependent upon malnutrition, "neurasthenia," errors of diet, etc., but the above is excerpted as the most comprehensive and concise.

Food is an exceedingly complex substance. Leaving out of account those substances which are insoluble and incapable of absorption, and which are also not amenable to the influences of the digestive juices, true foodstuffs may be classified as follows: Albuminous matters, including the true proteids (such as albumen of egg, casein of milk, myosin of muscle, fibrin of blood, etc.), and the albuminoid bodies,—gelatin from tendons and bones, chondrin from cartilages, and elastin from various elastic structures: Hydrocarbons or fats, of which those chiefly used for food are stearin, olein, and palmitin: Carbohydrates: Various inorganic salts: Water. The third group includes amyloids or starch-like bodies, saccharoses like cane-sugar, glucoses like the grape-sugar and fruit-sugar found in honey and in ripe fruits, the sugar of milk, etc. In addition to these are the allied bodies, cellulose, pectin, arabin, mucilage, etc., which in some animals, or in some conditions, are certainly digestible. In a subdivision of the same group may be mentioned the various vegetable acids, lactic, acetic, citric, malic, etc., which are essentially foods.

According to physical laws every action of the living organism implies expenditure of energy, which must be derived from potential forces within the economy; it is absolutely necessary, therefore, that the organism be furnished material out of which potential energy may be manufactured. Physiological chemistry shows that in this process three essential principles are necessary, viz., proteids, carbohydrates, and fats, and that these three classes must be ingested in certain relative proportions to each other and to the individual organism in order to meet the demands. In animal foods one compound is found in greater abundance, in vegetable foods another; consequently only by a mixed diet can the proportions of each be brought within essential limits, even though the vegetarian contends otherwise. The proportions of the three fundamental compounds necessary to the production of the requisite potential energy vary in different individuals, so that no definite general rules can be formulated as to the exact quantities each organism shall consume in a given time; this could only be accurately determined by careful experimentation with each organism itself.

The idea that the body is a machine and food its fuel, to be supplied in a given weight daily, is correct enough for elementary physiological teaching; but for practical therapeutic purposes it must be borne in mind that the human animal is omnivorous, that something more must be thought of than the supplying of a certain number of heat units or proteid molecules, that a reasonable variety of food and a certain courtesy of the palate are necessary for the proper performance of the digestive process.*

The importance of water, ingested as such, in proper quantities and at proper times is also a matter of some importance.

No form of food is available until it has been transformed by digestive and assimilative processes, acted upon by the various digestive fluids of the organism itself, and converted into substances which supply potential energy. This transformation of foodstuffs into living tissue,—this conversion of inanimate substances into animate existence,—is a problem so complex in its significance as to be practically beyond the power of human comprehension, certainly beyond the power of human understanding and adequate explanation, based upon present knowledge. Nowhere else except in the living organism

* Benedict, *American Therapist*, vol. v, No. 7.

is such a phenomenon observed. While it is true the plant derives sustenance from the mold in which its seed is implanted, and from the oxygen and hydrogen contained in the natural elements, still the process cannot be denominated the conversion of dead or inanimate into live or animate substances; the process is distinctly and essentially different from that which occurs in the animal kingdom, although in many respects the growth and development of plant and animal life are identical.

As to whether primitive man was herbivorous or otherwise is of no special importance, but from all the information that may be regarded in any degree authentic he appears to have been, as now, distinctly omnivorous; moreover, his digestive apparatus is so constructed as to require foods of both animal and vegetable origin in order to promote and maintain normal physical equilibrium, statements of vegetarians to the contrary notwithstanding.

The quantity of food, on an average, to be daily ingested, embracing the fundamental compounds, has been variously estimated, but the following appears reasonable:*

Carbohydrates	150 grammes.
Albumens	120 grammes.
Fats	90 grammes.

The quantities and proportions vary somewhat according to the size and weight of the individual, amount of work performed, exposure to cold or heat, etc. It is said mental exertion calls for a greater quantity of albuminous foods; more of the fats are required by those exposed to cold; less of all foodstuffs by those exposed to excessive heat, unless there is a compensatory waste due to exertion; while starch and sugar are especially needed for carrying on the ordinary combustion of the body and for supplying the requisite physical force.

In the choice of food, while the normal appetite probably affords the best indication, healthful nutrition must always be considered, for though the appetite may crave certain articles of diet, owing to idiosyncrasy of the individual or some digestive disturbance, proper digestion and adequate assimilation would be impossible; therefore care must be exercised in the selection of foodstuffs. In the early days, when practically nothing was known of the digestive or assimilative functions of the human economy, the choice of food was probably governed almost entirely by taste, its satisfaction of the demands of the palate, etc. At that period, when the vitality of the human race was unimpaired, when instincts were unperverted, when indigestion was unknown, when all physical and mental infirmities were attributed to anger of the deities, such a standard was probably the most natural and correct one. At the present day, however, conditions are changed, and indigestion is the bane of the human race. To quote a recent writer: "With the advance of civilization and the supremacy of reason, natural instincts have been forced into the background, either lost altogether or disregarded and misunderstood." *En passant*, this advanced civilization has not only perverted the appetite of the genus homo in this particular, but is also responsible for many other well known perversions.

As hereinbefore suggested, the normal appetite forms a fairly accurate index to the needs of the organism, whether for water or foods of the various kinds, and only when the appetite becomes perverted, or the digestive functions become moderately impaired, is it necessary to stipulate quality and quantity of foodstuffs and the amount of water or other fluid that should be ingested. That this becomes necessary in many instances under the advanced civilization and consequent perversion of taste and appetite and impairment of the digestive functions is very plain.

Some valuable information may be deduced from a study of experiments concerning the chemistry and economy of food:

> The energy is latent in the food, and is developed as the food is consumed in the body. It is called potential energy, and its quantity measured as are quantities of heat or mechanical power. . . . A gramme of protein or carbohydrates would yield a little less than half as much energy as a gramme of fat. . . . Protein forms tissue and serves as fuel; fats form fatty tissue and serve as fuel; carbohydrates are transformed into fat and serve as fuel.—All yield energy in form of heat and muscular strength. In being themselves burned to yield energy, the nutrients protect each other from

* Benedict, *loc. cit.*

being consumed. The protein and fats of body tissues are used like those of food. An important use of the carbohydrates, and fats is to protect protein from consumption. . . . The fat of the food is its reserve store of fuel. The fuel value of the fats is more than twice as great, weight for weight, as that of protein or carbohydrates. . . . In the metabolism of matter and energy is had the foundation of the theory of nutrition. . . . To measure the quantities of material metabolized it is necessary to take into account the total income and outgo of matter. The income of matter consists of food, drink, and oxygen of inhaled air. Part of this material is transformed into blood, muscle, fat, bone, and other tissues. The rest, together with materials worn out with use, undergo various chemical transformations and are finally given off from the body in the form of gases through the lungs and skin, of liquids and solids excreted by the kidneys and skin, and undigested residue of food and metabolic products excreted by the intestines. The substances excreted in these ways constitute the outgo of material. In accurate experiments upon the income and outgo these materials are measured by their chemical elements.

The author then gives results of experiments as to daily gains or losses of nitrogen, protein, etc., compared with amount of different varieties of food ingested in a given time, and after mathematical calculation draws some deductions which are of some undoubted practical value as far as they go, but is frank to state:

> It must be remembered that the world to-day is only at the beginning of these subjects, and a very large amount of the most laborious, painstaking, and abstract inquiry will be needed to tell satisfactorily what needs to be known.

The relation which food ingested bears to the animal organism, with respect to the preservation of life, the process of development and growth, etc., is still one of the unfathomed mysteries, though modern scientific research has demonstrated fundamental facts sufficient to afford at least a reasonable basis for its intelligent and more or less accurate comprehension. The consideration of such foodstuffs as shall economically maintain normal physical equilibrium, based upon quality and quantity ingested, and the energy expended, properly belongs to the domain of medicine; and unless the energy used is promptly and adequately replaced the phenomenon which we call life in the organism must speedily cease from exhaustion.

Louisville, Kentucky.

THE MEDICAL AGE.

A SEMI-MONTHLY REVIEW OF MEDICINE.

—PUBLISHED BY—

GEO. S. DAVIS, Medical Publisher, Box 470.

All communications regarding papers, reports, etc., should be addressed to the Editor of the MEDICAL AGE, P. O. Box 470, Detroit, Mich.

Matters relating to advertising space, etc., to be addressed to the publisher, Geo. S. Davis, Box 470, Detroit, Mich.

The editor cannot engage to return rejected manuscripts or to correspond with the writers thereof, unless such are accompanied by sufficient postage.

DETROIT, MICH., JULY 26th, 1897.

Editorial.

MUMMIED HEADS.

Herewith are presented four cuts of very strange, post-mortem, artificially contracted Indian heads from Ecuador and Brazil. All have had the bones removed and are mummied to about the size of a large orange; are of slightly aromatic odor and leathery consistency.

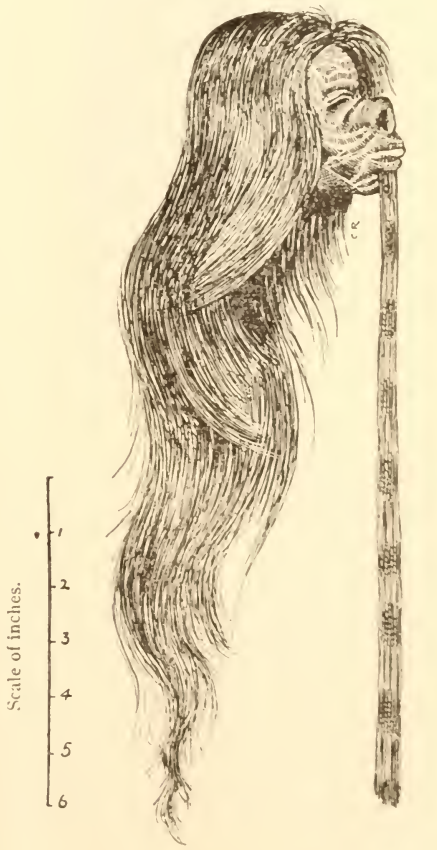


FIG. 1.

The origin of these is somewhat mysterious. They are decidedly scarce, the few that have found their way into museums having for the most part been obtained in or about the town of Macas at the foot of the Andes—a town which does not at present have any direct intercourse with whites. Those from Macas appear to be larger than the few that have been derived direct from the Indians of the Jivaro tribe.

FIG. 2.

In the *London Intellectual Observer* of 1862 Bollaert, who draws his information from a history given by Velasco, says: "Heads of victims are cut off, the skull and its contents removed, and a heated stone introduced into the hollow of the skin. Desiccation goes on and it is reduced to about one-fourth, retaining some few of the features. . . . A double string is attached to the top of the head so that it may be worn around the neck. The lips are sewn together and a number of strings hung from them, the use of which is not apparent."

In the *Journal of the Anthropological Institute* for 1874 Sir John Lubbock made the declaration—though upon what authority is not known,—that "these heads are boiled for some time in an infusion of herbs, the bones then removed from the neck and heated stones put into the hollow, whereby the head is dried and contracted."

Doctor Page in a recent paper* states, on the strength of "a distinguished anatomical authority in England," that if a dried preserved head be softened, boiled in water, and the bones removed by means of an incision along the occiput, the soft parts will shrink in exactly the same manner as the preserved Indian heads.

FIG. 3.

The same gentleman gives a list of such heads as he has been able to trace in the different museums of Europe. Besides six that were variously exhibited in London between 1853 and 1882, there are four in the British Museum; one in Brighton Museum; one at Owens' College, Manchester; three at Cambridge University; one in the Antiquarian Museum, Edinburgh; one in the Edinburgh University Anatomical Museum; one in Dublin University; three in Berlin University; three in the Public Museum of Vienna; three in the Vienna Pathological Museum. The editor of this journal has seen no less than four within the limits of the United States and one in

Journal of Anatomy and Physiology, January, 1897.

Canada, all in private hands, though it is understood one of these has been donated to the Smithsonian Institution. Some of the heads described by Page do not, however, properly belong to this category, as they are of materially larger size, many containing a considerable proportion of the bony constituents, and the majority lack the thread ornaments which are the characteristics of those obtained from the Jivaros. —It must be understood at once that the preserved heads from the East Indies, such as are found among the Dyaks of Borneo and Sumatra, and likewise those derived from the Manchurucus of Brazil, are of entirely different character from these herein illustrated, and in great part retain their natural size.

Besides the list given by Page we are informed there are several in Italian museums —four or five—and three at Madrid; there was also one—that probably pertains to the list given by Doctor Page—in possession of the late Doctor Frank Buckland, a facsimile of which appears in Fig. 1.

Of those brought to the United States, four were originally in the possession of Mr. Hassaurek, formerly United States Minister to Ecuador, which the writer had the privilege of examining some years since. Mr. Hassaurek is authority for the information that these are not "worn about the neck," neither are they, as has been generally surmised, worshipped as household gods, but obtained by the Jivaros from the *huacas* or ancient burial places. While they are regarded with considerable reverence, no such superstition attaches thereto as has been commonly credited. It was a Doctor Andrade, curate of the village of Machuchi, who first propounded the idea that these heads were treated as idols, especially implored to keep family secrets, and for every secret entrusted a string drawn through the lips; he is to be credited also with promulgating the belief they are worn by their possessors on solemn occasions as ornaments. All this is purely hypothetical, without any true foundation.

None of the heads seen by us have ever been opened upon the occiput, and only in one or two instances was there a cord through the sinciput for purposes of suspension.

It would seem highly probable that the threads that passed through the lips originally possessed some such significance as the *Quippus* of the ancient Peruvians, which are said to have been composed of large base cords, to which were fastened in a peculiar manner threads more or less fine and knotted or entwined in established order for the purpose of expressing ideas, events, or numbers. The ancient Peruvians were in the habit of carving in semblance of human form the posts or wooden "idols"(?) which held these registers. The art or science of the

Fig. 4.

Quippu language appears to have been lost to a great extent by modern Peruvians, although it is imagined there are in the southern provinces Indians who understand how to decipher these intricate memorials, but guard their knowledge religiously as a sacred secret inherited from their ancestors.

The configuration of the lips of these mummied heads, the perforations through them—

which no doubt date from the earliest history of mummification—strongly suggest a purpose of chronicling history. Something of the same kind was observed of certain of the mummies that have been found of an extinct race that formerly inhabited the Fortunate (Canary) Islands.

O TEMPORA! O MORES!

Ever since the "contagious form of feeble-mindedness" known as osteopathy announced itself, we have been expecting to see a journal devoted thereto. It has at last arrived. On the cover is the Madonna and infant, the nimbus about the head of the former bearing the motto "Science, Truth," while that of the latter adds, "and Osteopathy;" there are also most appropriately a ram's head, two skulls, and a portrait of the founder of the "science," who manifestly posed for the skulls as well, for there are the same high cheek bones, the same vacuous expression, and the same flattening on one side of the head.

We observe a chapter devoted to "Analysis of Urine" by an individual who signs himself A. H. Sippy, M.D., Ph.G., etc., and one at once realizes that the relations between uriniscopy and osteopathy are quite close.

There are numerous illustrations, and every paper bears a portrait of its author—a collection of faces one rarely sees outside of an idiot asylum. It is needless to say that they are all "doctors" of osteopathy—for everything goes in this "science." In fact osteopathy appears to be the Still family, for on one page we find them all grouped together, and all write themselves doctors, down to the youngest "kid."

The originator of all this humbuggery is of course the founder of the journal, and the latter is as unique in character and appearance as its author. It is to be especially admired for its thorough independence of all rules of grammar, spelling, and rhetoric.

This publication also informs us that "Doctor" Still, the editor, is "a great seer of the visions of the night"—this is how he discovered osteopathy.

***

Of course osteopathy is the "coming profession," and like all "pioneer discoveries" is being "very much abused by the drug doctors."

***

The Board of Health of the State of Kentucky is after the osteopaths with a sharp stick for irregularly practising surgery. A part of the defense of one individual arrested was the plea that osteopaths "do not practise surgery;" but we discover in the *Journal of Osteopathy* that one "Bill" Smith, "M.D., D.O.," is "Demonstrator of Anatomy and Lecturer on Symptomatology and Surgery in the American School of Osteopathy."

"Bill" likewise claims to be a native of the Land o' Cakes; and alongside of his beauteous portrait appears the information that he is a "Licentiate of the Royal College of Surgeons and the Royal College of Physicians;" also of the "Faculty of Physicians and Surgeons of Glasgow, Scotland; Licentiate of Midwifery, member of the Medico-Chirurgical Society, and Fellow of the Obstetric Society of Edinburgh." Further is added he "received his medical education from the University of Edinburgh and the Royal Colleges of Physicians and Surgeons of Edinburgh"—a statement which *per se* gives evidence of his fraudulent character, inasmuch as there are no such teaching bodies in existence as named.

An examination of Polk's and Flint's Directories fails to reveal any individual of this name possessed of medical qualifications.

We opine if "Bill" will visit the other side of the Atlantic, he will doubtless receive the most careful attention, and likewise be boarded at the public expense for a number of months. Fortunately Great Britain has the faculty of looking after such gentry and is always ready to accord them a very *warm* reception.

So also "Doctor" Andrew Taylor Still, the founder of osteopathy, is equally lacking in evidence of medical training.

EDITORIAL NOTES.

Wonderful! Wonderful!!—

"William Smith, M.D., D.O.," in the *Journal of Osteopathy*, in order to exhibit the education which he has received at "the University of Edinburgh and the Royal Colleges of Physicians and Surgeons of Edinburgh," cites

among the wonderful cures which have occurred to osteopathy a man who, after being told he had only "three days to live," that "no one could do him any good, it would only shorten his life to move him," was "given up to die with that terrible disease, cancer of the stomach." "*For three months before his arrival he had passed no urine*, and during the progress of the disease the patient and his wife both mentioned the fact to the attending physicians, but the clear and scientific explanation was given that the 'tumor had closed over the tubes leading from the kidneys to the bladder;' nothing could be done, he must pass away. Against the very strong advice of his physicians his devoted wife brought him to Kirksville, and at once found that the terrible cancer of the stomach was nothing more than a distended bladder (we should have thought a wife so astute at discovery might have accomplished this feat at home—ED.). . . . Here the distended bladder was relieved by means of a catheter and seventy-two ounces of stale, ammoniacal urine was drawn off. In thirty hours three hundred ounces (approximately five gallons —ED.) of urine were voided, and the patient is in a fair way to recover."

Can ignorance and cheek go farther? And "Bill" is going to "write up" the ignorant "drug doctors."

Sugar-cane as Food.—

An exchange says that "negroes on sugar plantations almost live on sugar-cane during the season, and thrive on it."

More: In the West Indies it is a staple article of food the greater part of the year among the blacks, the cane being preserved and stacked for the purpose. The whites, however, do not thrive thereon.

Eminently Proper.—

Physicians and midwives are to be paid a fee of 25 cents each for reporting births, and clergymen and magistrates a similar fee for reporting marriages to local boards of health in New York State.

Is it True?—

An exchange says a stab wound of the heart has been sewed up by Rehe, of Frankfort, and the patient recovered.

Items and News.

Osteology.—

How many bones in the human face?
Fourteen when they're all in place.

How many bones in the human head?
Eight, my boy, as I've often said.

How many bones in the human ear?
Three in each, and they help to hear.

How many bones in the human spine?
Twenty-six like a climbing vine.

How many bones in the human chest?
Twenty-four ribs, and two the rest.

How many bones in the shoulder bind?
Two in each—one before and one behind.

How many bones in the human arm?
In each one, two in each forearm.

How many bones in the human wrist?
Eight in each if none are missed.

How many bones in the palm of the hand?
Five in each with many a band.

How many bones in the fingers ten?
Twenty-eight, and by the joints they bend.

How many bones in the human knee?
One in each—the kneecap please.

How many bones in the human hip?
One in each—like a dish they dip.

How many bones in the human thigh?
One in each, and deep they lie.

How many bones from the leg to the knee?
Two in each and plain to see.

How many bones in the ankle strong?
Seven in each, but none are long.

How many bones in the ball of the foot?
Five in each, as the palms were put.

How many bones in the toes half-a-score?
Twenty-eight, and then no more.

And now altogether these many bones fix
And they count in the body two hundred and six.

And then we have the human mouth
Of upper and under thirty-two teeth.

And now and then a bone I should think
That forms on a joint, or to fill up a chink.

A sesamoid bone. or a wormian we call;
And now we may rest for we've told them all.

—*Indian Medical Record.*

The College Nuisance.—

If "censure is the tax a man pays the public for being eminent," the abuses of a great city place an enormous tariff upon its educational institutions. Including men, women, and children, Chicago has more than two thousand physicians, mostly professors!

Some of its so-called medical colleges are about as noisy and disreputable as were the foreign booths in the Midway Plaisance. And as the overmultiplication of weak and feeble churches puts a premium on mediocre preaching, and damages the moral standing and welfare of communities, so the wicked propensity to start a college and to be at the head, or the tail, of a new and needless school has seriously compromised the whole business of getting a medical education. Certain sleepy old towns that might be named have no such trouble, and we are glad of it; but here in the stir and whirl of the biggest city in America the abuse has grown to such an alarming extent that the various medical societies are finally coming to the rescue of decency and the proprieties.—*The Clinique.*

Fatty Matters Found in Tombs of Abydos.—

This consisted chiefly of palmitic and stearic acids, and was doubtless the tallow of beef or of mutton. It is interesting to find that the fatty acids, such as the stearic and palmitic acid, and even the glycerides of these acids, have been capable of preservation for thousands of years. Among the substances found in small vases was pulverized lead sulphide mixed with a quantity of fatted matter; evidently an ancient Egyptian cosmetic used as antimony sulphide is still employed in the East.—FRIEDEL.

An Old Custom.

It was formerly the practise among physicians to use a cane with a hollow head, the top of which was gold, pierced with holes like a pepper-box. The top contained a quantity of aromatic powder, or of snuff, and on entering a house or room where infectious disease prevailed, the doctor would strike his cane on the floor to agitate the powder and then apply it to his nose. Hence all the old prints of physicians represent them with canes to their noses.—*Exchange.*

The "Jag Cure."—

A noted London chemist has analyzed Keeley's bichloride cure with the following result: Water, 31.61 per cent.; sugar, 6 per cent.; a trace of mineral salts, principally lime; and 27.55 per cent. of strong alcohol. —*Nature.*

The Whole Truth.—

The "end and aim of medical charity is to make consulting physicians and surgeons, and it is for this purpose nowadays that all hospitals, great and small, special and general, exist."—CAMPBELL BLACK.

Book Reviews.

ELEMENTS OF GEOLOGY. By Joseph Le Conte. Cloth; 8vo; pp 670. Price, $4.00. D. Appleton & Co., New York.

This is in no sense an exhaustive manual, but presents to the cultured and intelligent reader whatever is best and most interesting in geological science. A really scientific presentation of the departments of the wide field of geology is given, and the work is so arranged as to be both interesting and profitable to the general reader as well as to the student. The author says:

In the selection of material and mode of presentation I have been guided by long experience as to what it is possible to make interesting to a class of young men somewhat advanced in general culture and eager for knowledge, but not expecting to become special geologists. In a word, I have tried to give such knowledge as every thoroughly cultured man ought to have and at the same time provide a suitable foundation for the further prosecution of the subject to those who so desire. . . . Most text-books now in use . . . are, in my opinion, either too elementary on the one hand or else adapted as manuals to the specialist on the other. I wish to fill this gap—supply a want felt by many intelligent students and general readers.

The author has certainly succeeded in his attempt, and of the many books of this kind presented this is by long odds the best.

TEXT-BOOK ON MENTAL DISEASES. By Theodore H. Kellogg, A.M., M.D. Cloth; 8vo; pp. 792. Price, $6.00. William Wood & Co., New York.

This is a practical guide to the diagnosis and treatment of all the various types of insanity and at the same time reflects a knowledge of all the relevant psychological facts of recent English or foreign literature, making a work eminently practical in character and available for the use of general practitioner and student as well as the specialist.

The author's long experience while holding prominent positions in large hospitals for the insane—notably Willard State Hospital—both public and private, as well as during many years of private practise in the treatment of mental affections in the State of New York, has qualified him as few ever are for the preparation of a work of this character. A table of contents and a copious index give ready access to all the matter contained.

THE MENOPAUSE. By Andrew F. Currier, A.B., M.D. Cloth; 16mo; pp. 309. D. Appleton & Co., New York.

This is a consideration of the phenomenon which occurs to women at the close of the child-bearing period, with incidental allusions to their relationship to menstruation. Also a particular consideration of premature (especially artificial)

menopause. This is the only work of the kind at present extant, the last being Tilt's, which was out of print twenty years ago. Doctor Currier has had the subject under consideration for many years, and declares that he was never able to see the sense nor the logic of the traditionary teaching repeated generation after generation that the menopause was a dangerous or even serious period; neither does he believe that the menopause is in any way related to malignant disease.

As a whole the volume is a most interesting one and well worthy of perusal.

In the Old Chateau. By Richard Henry Savage. Paper; 16mo; pp. 339. Price, 25 cents. Rand, McNally & Co., Chicago.

This is No. 10 of the Oriental Library, and in the well known style of the author. The scenes are laid in Russian Poland and deal with Russian rule, with the usual love tale.

Which Loved Him Best. By Bertha M. Clay. Paper; 12mo; pp. 342. Price, 25 cents. Rand, McNally & Co., Chicago and New York.

This is No. 258 of the Globe Library, and one of the best by this author. It is by no means a new publication, but nevertheless will be found as interesting as the latest.

The Auk. Price, 75 cents; $3.00 per year. L. S. Foster (for the American Orinthologists' Union), New York.

The July (No. 3, volume XIV) issue of this quarterly journal of ornithology is before us replete with good things, and as interesting as it always is. Doctor Jonathan Dwight, Jr., gives "A Study of the Philadelphia Vireo," accompanied by a plate; "Some Abnormal Color Markings" is by Gerrit S. Miller; "The Terns of Penikese Island, Massachusetts," by George H. Mackay; "A List of the Species of Anseres, Paludicolæ and Limicolæ of Louisiana," by E. A. McIlhenny; "Nesting of the Parula Warbler in Cape May County, New Jersey," by Mark L. C. Wilde; "A New Towhee from California," by Joseph Grinnell; "An Addition to North American Petrels," by William Palmer; "Description of a New *Empidonax*, with Notes on *E. difficilis*," by Harry C. Oberholzer; "Noteworthy Plumage Observed on the American Eider Drake," by Arthur H. Norton; "Summer Home of Bachman's Warbler, No Longer Unknown," by O. Widmann; "A Preliminary Description of New Birds from Mexico and Arizona," by Frank M. Chapman. There are the usual General Notes, Recent Literature, Correspondence, etc.

The Atlantic Monthly. Price, 35 cents; $4.00 per year. Houghton, Mifflin & Co., Boston and New York.

In the August issue John Muir writes of "The American Forests;" "Some Unpublished Letters of Dean Swift" (I) is by George B. Hill; "A Typical Kansas Community," by William A. White; "A Massachusetts Shoe Town," by Alvan F. Sanborn; "Butterfield & Co." (I), by Frances C. Baylor; "Within the Walls," by Guy H. Scull; "Strivings of the Negro People," by W. E. B. Dubois; "Out of Bondage," by Rowland E. Robinson; "The Holy Picture," by Harriet L. Bradley; "The Pause in Criticism—and After," by William R. Thayer; "The Delinquent in Art and in Literature," by Enrico Ferri; "The Juggler" (conclusion), by Charles Egbert Craddock; "A Forest Policy—In Suspense," the duty of the United States Government to inaugurate a definite and vigorous policy to preserve our great forests; "Mahan's Nelson," a review of Captain Mahan's biography of Nelson; "Illustrations of North American Butterflies" is an explanation of Edwards' great work on North American Butterflies, now completed.

The Badminton Magazine. Price, 30 cents; $3.50 per year. Longmans, Green & Co., New York.

In the July issue W. M. Wilcox writes of "A Fisher's Tragedy," which is well illustrated by F. S. Wilson; "Solent Yacht Racing" is by Barbara Hughes, the illustrations being from photographs; "Reminiscences of Albanian Sport," by Randolph L. Hodgson, the illustrations being by E. Caldwell; "Frederick Archer," by Godfrey Bosvile; "The Monster Fish," by Gerard Ferrand, illustrated by C. Dean and J. A. Duncan; "Walks and Climbs in the Zillerthal," by Lionel W. Clark, illustrated by photographs; "A Bicycle Gymkhana," by Susan, Countess of Malmesbury, illustrated by G. H. Jalland; "A Golfing Melodrama," by Horace Hutchinson; Hedley Peek contributes another series of delightful "Sporting Prints," which relate chiefly to fox-hunting; A. R. Quinton writes of "Through the Black Forest Awheel," furnishing his own illustrations. There are the usual "Notes by 'Rapier.'"

Our Animal Friends. Price, 10 cents; $1.00 per year. Society for Prevention of Cruelty to Animals, New York.

The July issue offers a lengthy argument against the popular theories concerning rabies and hydrophobia, offering in support of the view that cases of rabies among dogs and hydrophobia in the human family are very much more infrequent than is supposed, and that the disease we know as hydrophobia is really produced by fear and dread than by canine virus. To fortify these statements the experience and evidence of many physicians and surgeons of wide reputation are brought forward. Doctor Parvin, of the Jefferson Medical College, says that in forty-four years' experience he has never seen a case of genuine hydrophobia, and expresses his opinion that if the newspapers would talk less about it the number of so-called attacks would be greatly diminished. The attacks are really hysteria brought on by terror, he says. That this article is pregnant with truth is not to be gainsayed.

The Midland Monthly. Price, 15 cents; $1.50 per year. Johnson Brigham, Des Moines, Iowa.

In the July number Susan Sands writes of "Booker T Washington's Work Among the Negroes." "Grant's Life in the West and His Mississippi Valley Campaigns" is continued; "Life at Vancouver" is by John W. Emerson; "Across Country in a Van" (VI), by Mary Avis Scott; "Our

American Egypt" (prize paper), by C. C. Coulter; "Lord Byron Reconsidered," by John Talman; "A Cubic Foot of Earth," a sketch by Bertha M. Horak; "A Woman that is a Woman," by Mabelle Biggart; "Denmark in America," by Ed. S. White; "The Boy on the Farm," by D. M. Kelley; "Our Inland Seas," by F. W. Fitzpatrick; "Evolution of the Politics of Iowa," by Mrs. James S. Clarkson. In the Fiction Department "The Mystery of Hayward Castle" is by W. E. Boynton; "A Tandem Adventure in Montana," by A. E. Eggleson; "Lieutenant Burton's Wooing," by Henry Romeyn; "An Umbrella Incident," by Emma M. Bibbs.

APPLETON'S POPULAR SCIENCE MONTHLY. Price, 50 cents; $5.00 per year. D. Appleton & Co., New York.

In the August issue Doctor T. D. Crothers considers "New Questions in Medical Jurisprudence," concerning the moral and legal accountability of inebriates, etc.; David A. Wells contributes the ninth of the series of articles on "The Principles of Taxation;" under the heading of "The Paradox of Diderot" M. Alfred Binet, the distinguished French psychologist, inquires whether actors feel the emotions which they represent in the parts they play; the use of the "Thyroid Gland in Medicine" is described; Professor W. Z. Ripley writes of "The Racial Geography of Europe;" William H. Ballou writes of a new element that has been introduced into the problem of the origin of our cats by the discovery in Brazil of a tortoise-shell wild cat, of which the late Professor Cope had the only known museum specimen.

THE CANADIAN MAGAZINE. Price, 25 cents; $2.50 per annum. Ontario Publishing Co., Limited, Toronto.

This is the first issue of the *Canadian Magazine* since its amalgamation with Massey's, and it presents a much better appearance than at any time during the last six months. The contents of the current issue are: "Complaining of Our Tools," by T. A. Haultain; "The Metamorphosis of Mary Ann," by Virna Sheard; "Picturesque St. Pierre," by Mrs. E. A. Randall; "Children of the Town," by Esther T. Kingsmill; "A Glimpse of Norway," by Winifred Wilton; "The Premiers of New Brunswick Since Confederation," by James Hannay; "The Royal Grenadiers' Colours," by T. E. Champion; "The Queen Victoria Niagara Falls Park," by E. A. Meredith; "My Contemporaries in Fiction" (IX), by David Christie Murray. There are the usual poetry and departments.

MCCLURE'S MAGAZINE. Price, 10 cents; $1.00 per year. The S. S. McClure Co., New York.

Among the contributors to the Midsummer number are Rudyard Kipling, Cy Warman, A. Conan Doyle, Anthony Hope, Robert Barr, James Whitcomb Riley, William Canton, Hamlin Garland, Robert Louis Stevenson, John Kendrick Bangs, and Albert Bigelow Paine. It has a special cover, and most of the contributions are fully illustrated. Anthony Hope writes of "C. D. Gibson," the American artist; the complete novelette, a story of "England and India," is by Rudyard Kipling; Madame Blanc describes "The Paris Gamin;" and Hamlin Garland tells the story of the first meeting of Lincoln and Grant.

DONAHOE'S MAGAZINE Price, 25 cents; $2.00 per year. Donahoe Magazine Company, Boston.

The July issue opens with a review of "Men and Things," by Henry Austin Adams, M.A.; Marie D. Walsh describes the "Processlon of the Ammantate," in St. Peter's, Rome, on Corpus Christi; Thomas Gaffney Taafe imparts much valuable information in "The Champlain Assembly;" Felix March gives a graphic sketch of a "Recent Revolt;" "The Visitation Order in the United States" is by Lydia Sterling Flintham; "Life, Legends and Miracles of St. Patrick" is by P. J. Lynch. The short stories are very pleasing, the poetry good, the illustrations numerous and very interesting.

INTELLIGENCE. Price, 10 cents; $1.00 per year. Metaphysical Publishing Co., New York.

The July issue presents a fine portrait of Augustus Le Plongeon, M.D., the well known Egyptologist and Mayaxologist. Andrew W. Cross writes of "The Unseen World;" Doctor Dowson of "Ourselves Critically Considered;" John Hazelrigg of "The Rationale of Astrology;" C. H. A. Bjerregaard of "Consciousness, Conscience, and Being" (XXIII); H. M. North of "Mental Pasturage;" Paul Avenel of "Mirage;" Hudor Genone of "The Philosophy of the Divine Man" (II); W. H. Galvani of "Fruit in Tradition;" Henry Clay of "Jezirah" (the Mystic Shrine). There are the usual departments.

THE DECORATOR AND FURNISHER. Price, 20 cents; $2.00 per year. The Art Trades Publishing and Printing Co., New York.

In the Amateur Home Decoration Department for July there are "Articles of General Interest" and "Of Interest to Women." Also "Drapery Notes for Summer;" "Decorative Textile Fabrics;" "An Attractive St. Louis Home;" "Decorative Notes;" "Mrs. Kate Collins the Artistic Decorator;" "Guide to the Styles;" "Wood Carving for Amateurs;" "The Old Teapot;" "A Dutch Diningroom;" "Art Furniture at the Paris Salon;" "Japanese Room;" and "Pottery and Glass Notes."

ARCHITECTURE AND BUILDING. Price, 10 cents; $4.00 per year. William T. Comstock, New York.

Contents for July 10th: "The Question of Licensing Architects;" "Editorial Notes and Comments;" "Trussed Roofs" (VIII); "The Trans-Mississippi International Exposition;" "Competition for the Soldiers' and Sailors' Memorial;" "The Caracas Warehouse for the Display of American Goods;" "Architecture in Relation to the Crafts;" "National Sculpture Society;" "Personal;" "Current Notes;" "Industrial Progress."

AMERICAN KITCHEN MAGAZINE. Price, 10 cents; $1.00 per year. The Home Science Publishing Company, Boston.

Contents for July: "Home Making for One;" "The Chemistry of Cooking and Cleaning," by Ellen H. Richards and S. Maria Elliott; "Twelve Days on a German Steamer," by Mrs. Mary J. Lincoln; "Education in Central Europe;" "Southern Recipes," by Mrs. J. E. Rorie; "Poisonous Ice Cream and Cheese." There are the usual departments.

Therapeutic Brevities.

Infantile Feeding.— Good cow's milk is best; boil it in winter or sterilize it in summer, and dilute according to the age of the child with the different cereals,—oatmeal-, rice-, or barley-water,—these latter are given according as the bowels tend respectively toward constipation or diarrhœa. At the age of seven or eight months soups or meat juice may be added. Corn-starch in milk, or a soft boiled egg, makes a pleasant semi-solid food for children. A zwieback or crust of white bread may be put in the baby's hand about this time.

Although the process of dentition is actively going on at this period, it must be remembered that seldom does it cause disturbances. It is always a good rule to first examine into the baby's dietary before examining the gums.

In times of emergency, when the milk supply to a large city is cut off—as during severe snow blockades in winter—condensed milk may be of service. The degree of condensation varying among the different specimens, and the proportions of sugar being unstable, it will be well, as a rule, to rather select freshly-obtained cow's milk.

The artificial foods rank last on the list of desirable foods for such young infants. No two preparations are exactly alike. The addition of foreign substances will be found to deviate from the natural mother's milk, and the fact that these foods are often kept for long periods in the shops does not free them from the suspicion of having begun to undergo chemical decomposition at the time they are prepared for the baby's stomach.—*American Therapist.*

Nitroglycerin in Angina Pectoris.—Nitroglycerin acts best in pure angiospastic forms of angina pectoris, not so well in cardiac pain due to aortic aneurysm, and is often of no use at all in the pure motor neuroses of the heart:

Its action on different people can never be predicted:

If toxic symptoms appear after a small dose, it is best to discontinue the drug altogether:

If no toxic symptoms appear, gradually increasing doses can be given safely:

The form of administration is important; it is most active given in a liquid medium, and combined with tincture capsicum, rectified spirit, or peppermint water:

It acts surprisingly quickly and its action is generally at its height after two or three minutes:

It is generally necessary, when several small doses are without effect, to give larger doses; in some cases a single large dose acts best:

It is certain that much more than $\frac{1}{60}$ of a grain can be given as a single dose.—*British Medical Journal.*

Phytolacca Berries.— Phytolacca berries have been successfully used in the treatment of obesity. They will not make every fat person thin, but they will greatly benefit many and cause marked reduction in weight without bad effects. One marked advantage of this treatment of obesity is, the patient is not required to fast or play disagreeable pranks with diet.

Lately a new use for phytolacca berries has developed, viz., in the treatment of dyspepsia and indigestion. A rather fat person, who also suffered from the foregoing, tried the remedy and observed it greatly improved the condition of the stomach. The matter was mentioned to other dyspeptics, not fat ones, and a number also found marked relief.

In cases where there is rheumatism associated with obesity, phytolacca berries have proved very successful, often relieving the rheumatism even if they did not reduce the fat.—*Homœopathic News.*

Asthma.—The following prescription has achieved the happiest results in spasmodic asthma:

℞ Tincture stramonium, 2 drachms.
Ammonium carbonate, 1 drachm.
Sodium bicarbonate, 3 drachms.
Magnesium carbonate, 1 drachm.
Powdered rhubarb, 20 grains.
Chloroform, 20 minims.
Peppermint water, to make 8 ounces.

Half an ounce to be taken three times a day with an ounce of water.

Having thus secured a temporary lull in the complaint, the patient must be put on a course of arsenic, care being taken to give just as much as the stomach will bear. A good plan is to give Fowler's solution—five drops—with breakfast and dinner, and maintain the corrective dose with stramonium at night.—William Murray, in *Rough Notes on New Remedies.*

Thyroid Extracts.—There are few drugs in the Pharmacopœia for which it can be claimed that they cure the diseases they are given for in the same sense that thyroid preparations cure myxœdema. When the cretin, for ex-

ample, is subjected to thyroid treatment, it is found that every one of his functions and tissues is the better for it; thus his appetite, his digestive powers, and his general tissue metamorphosis are greatly increased, and he grows amazingly; he generally becomes reduced in bulk at first from losing some of his unhealthy fat, but afterward gains weight again, his muscular and connective tissues becoming healthier and more compact, and his skin softer and more moist; his brain tissue also gradually improves in quality, and his mind works more freely and assumes a markedly healthier attitude toward both itself and its surroundings.—THOMPSON, in *Pædiatrics*.

Malnutrition in Infants.—The combination of a yolk of egg and olive or cottonseed oil made into an emulsion is found very useful in cases of rickets or chronic malnutrition in infants. The emulsion can be made as follows:

Olive oil, 3 drachms.
Glycerin, 1½ drachms.
Yolk of two eggs.

Make an emulsion and add one-half minim of creosote to each drachm.

Occasionally it is better to use a smaller amount of creosote when this agent is not well borne by the stomach. A full teaspoonful of the emulsion is given three times a day after feeding. The preparation seems to be readily tolerated, even when the stomach is irritable.—*The Practitioner* (London).

"*Iron-Hunger.*"—The fact and effect of a craving for iron can be experimentally proved on animals. A strong, frisky dog, after a moderate loss of blood, was fed for five months on pure milk only, and gradually became so weak that he refused further nourishment, became reduced in body-weight, tottered when on his legs, and finally was at the point of death. At this stage fifteen grains of ferratin was added to the milk per day, which the dog ate with ravenous appetite, with the result that after fourteen days he had regained his weight and general condition to nearly equal the normal strength and activity possessed before commencement of the experiment.—*Schmiedeberg's Arzneimittelehre.*

Suspension in Tabes.—M. Gilles de la Tourette says that in the treatment of locomotor ataxia by suspension the spinal marrow is not elongated in any appreciable manner. On the contrary, forced flexion of the vertebral column produces a considerable amount of stretching, which singularly benefits patients. He constructed a special apparatus to effect this flexion without any danger, and operated on forty-five patients, of whom eight were women; they were all in the second stage of the malady. Twenty-two were considerably improved in all their symptoms, while fifteen experienced only temporary relief, and the remaining ten none whatever.—*Medical Press and Circular.*

Antidote for Arsenic.—The following is a simple method of preparing hydrated oxide of iron, the antidote for arsenic, one of its chief advantages being that the ingredients are always easily obtained: Take muriate tincture iron four ounces, and in a vessel of twelve ounces capacity, mix with one drachm ammonia water; shake well, pour on a large wet muslin drainer, wring out the water and alcohol, and wash with fresh water. The stomach having been evacuated by emetics while the antidote is being prepared, give four fluidounces at once, to be followed by an emetic. Then give two ounces every ten minutes.—SQUIBB.

Epilepsy.—The physician in these cases should bend every energy to finding out and removing the cause, instead of blindly prescribing bromides in every case. A typical and puzzling case, a girl of sixteen, was immediately cured by appropriate treatment after the discovery of large numbers of threadworms in her intestines; others by putting an end to unsuspected onanism or alcoholism or mental overexertion, that had been the predisposing cause.—MULIER, in *Wiener Klinische Rundschau.*

Effect of Drugs on Tracheal Membrane.—Alkalies increase secretion.

Potassium iodide increases secretion.

Emetine markedly increases secretion.

Saponin in small doses does not increase secretion; in large doses it diminishes secretion.

Cold, when applied to abdomen, increases secretion.

Heat, when applied to abdomen, diminishes secretion.—*Medical Times and Hospital Gazette.*

Umbilical Hernia in Infants.—Lobas' method does away with the necessity of bandages, which are so apt to slip out of place, while it does not interfere with bathing the child. He draws up a couple of

cutaneous folds around the navel, and closes them over it with a soft pad of absorbent cotton between, holding them in place with strips of diachylon. He renews the dressing once or twice a week.—*Journal of the American Medical Association.*

Cough Mixture.—A favorite formula is:

℞ Liquor morphine acetate, 3 drachms.
Dilute nitric acid, 1½ drachms.
Honey of squill, 4 drachms.
Mucilage gum Arabic, 2½ ounces.
Glycerin, 2 drachms.
Syrup red poppy, 2 drachms.
Cinnamon- and rose-water to make 6 ounces.

One or two teaspoonfuls five, six, or seven times in the twenty-four hours. The coughing in pertussis may be similarly relieved.—*The Practitioner* (London).

Threatening Baldness.—

Quinine muriate, 30 grains.
Tannic acid, 60 grains.
Alcohol (70-per-cent.), 12 ounces.
Tincture cantharides, 75 minims.
Pure glycerin, 12 drachms.
Cologne water, 5 drachms.
Vanillin, 1 grain.
Pulverized sandalwood, 30 grains.

After being well mixed and shaken, allow the mixture to stand four days, then filter. Rub into the scalp daily.

—*Revue de Thérapeutique.*

Quinine Mixture.—This is advantageous in irritable stomach when quinine is to be given:

℞ Sulphate of quinine, 2 grains.
Citric acid, 6 grains.
Simple syrup, ½ drachm.
Syrup orange flowers, ½ drachm.

This is to be placed in a wine-glass containing bicarbonate of sodium (from three to five grains) in saturated solution, and drunk during effervescence.—*Journal de Médecine de Paris.*

Hay Fever.—

℞ Menthol, 8 grains.
Chloroform, 5 minims.
Benzol, 20 minims.
Oil cassia, 3 minims.
Light carbonate of magnesium, 20 grains.
Water, to make one ounce.

Pour a teaspoonful into a pint of hot water at a temperature of 140° F., and inhale the vapor slowly for ten minutes.

—MURRELL.

Insomnia.—On retiring put in use by contraction a certain group of muscles; change to another before exhaustion, to another, and thence to another, having a definite routine; and continue until a sense of fatigue has come. The brain meantime is asked to keep a record of the respirations and of the muscular engagements in their order until it too says "Enough!" A few minutes generally suffices.—LEARNED, in *Boston Medical and Surgical Journal.*

To Prevent Iodism.—It is claimed that the following may be given indefinitely without causing iodism:

℞ Potassium iodide, 12 drachms.
Ammonium and iron citrate, 2 drachms.
Tincture nux vomica, 2 drachms.
Water, 12 drachms.
Compound tincture cinchona, 16 drachms.

Teaspoonful three times daily, in water, after meals.

—*Medical Weekly.*

Toothache.—Phosphorated oil is claimed as a sovereign remedy in removing pain from a carious tooth. The cavity being cleansed, a few drops of the oil on wool are packed into the part, and covered in with gutta-percha. The pain is quickly removed, and the plug may be left in for some days. The phosphorated oil is prepared with one part of phosphorus dissolved in about eight parts of expressed oil of almond.—*Practical Druggist.*

Picric Acid in Eczema.—Picric, or carbazotic, acid is being much used as an application in eczema, and is said to be quite free from danger. In my experience, although it is valuable in the majority of cases, it may cause much prostration, and in fact all the symptoms of carboluria, with very dark urine. The unpleasant symptoms developed certainly resembled the action of carbolic acid.—WALDO, in *The Lancet* (London).

For Dandruff.—

℞ Coumarin, 1 grain.
Essence of musk, 10 minims.
Benzoic acid, 10 grains.
Olibanum, 10 grains.
Oil of lavender, 30 minims.
Jasmine pomade, 2 drachms.
Rectified spirit, 10 ounces.

Mix all together, shake well two or three times a day, and in four days filter.

—*Chemist and Druggist.*

Cancer Paste.—

℞ Wheat flour, 1 ounce.
Starch, 1 ounce.
Arsenious acid, 8 grains.
Red sulphuret of mercury, 20 grains.
Ammonia muriate, 20 grains.
Corrosive sublimate, 4 grains.
Zinc chloride, 1 ounce.
Hot water, 12 drachms.

—*Druggists Circular.*

Carbolic Acid Burns.—Thoroughly wash hands with alcohol, when the burning and tingling will almost immediately cease. Unless employed immediately, however, the alcohol has no effect. When the time elapsed since the burning is too great for alcohol to be of value brush burns with a saturated solution of picric acid in water.—*University Medical Magazine.*

Cold Water in Diseases of Ear.—Becker makes use of ice bandages, or Leith's apparatus, in traumatic cases involving the external parts of the ear; in inflammatory processes in the external auditory canal, drum membrane, tympanum, mastoid process; and in chronic suppuration, where there is pain or œdema of the skin over the mastoid process. —*The Otologist.*

Epistaxis.—Gillette recommends the use of hydrogen dioxide. He uses a teaspoonful or more in full strength with any ordinary syringe. Relief is obtained immediately. In operations in the nasal cavity, when bleeding obscures the vision, inject hydrogen dioxide. Ask the patient to blow the nose and the field is clear again.—*Canadian Practitioner.*

"*Pin*"-*Worms.*—Give by the mouth every day before breakfast for three days three-fourths of a grain of santonin and one and a half grains of calomel; also every evening for the same number of days insert a little of the following within the sphincter: glycerite of starch two parts and mercurial ointment one part.—*Journal de Médecine de Paris.*

Exploration of Lateral Sinus.—Exploration of the lateral sinus with a sterilized hypodermatic needle is a safe and justifiable proceeding in doubtful cases. The operation affords a better chance for life than any other yet suggested This operation belongs to the province of aural surgery and should be performed by the aural surgeon.—ADAMS.

Helonias.—*Helonias dioica* is a valuable tonic and hepatic stimulant; but it is also said, in doses of twenty minims four or five times daily, to be effectual in removing the weight and dragging in the lower portion of the abdomen which accompanies the disorders of menstruation.—*American Medical Journal.*

Threadworms.—Give three-fourths of a grain of santonin with one and one-half grains of calomel before breakfast every day for three days; also, every evening for the same number of days, insert within the anus a little ointment made by adding mercurial ointment one part to glycerite of starch two parts.—COMBY.

Ointment for Mumps.—Tranchet recommends thirty grains each of ichthyol and chloride of ammonium in one ounce of lard applied to the swollen parts three times a day. In some instances vaselin may be used in place of the lard, and sometimes belladonna may be added with advantage.—*Indian Lancet.*

Vomiting of Pregnancy.—Add a teaspoonful and later a tablespoonful of oxygenated water (ten volumes of oxygen) to an imperial pint of water and take as a beverage with the meals. The effect is rapid, but somewhat inexplicable.—*Indian Medical Record.*

Orchitis.—An excellent application in swollen testicles is a thick paste of subnitrate of bismuth. Under its influence the pain, burning, and swelling rapidly disappear.—*Hospital Gazette.*

Hæmorrhage from Gums.—When severe hæmorrhage follows the extraction of a tooth it may often be completely repressed by spraying with ethyl chloride.—*Medical Times.*

Resorcin Camphor.—This is a transparent liquid made by fusing equal parts of camphor and resorcin, and is said to be an effectual parasiticide; it has also been found useful in the treatment of pruritus.

Apomorphine.—This drug is contraindicated in weak heart and œdematous conditions of the lungs.

Opium.—A contracted pupil is always a contraindication to the use of this drug.

Medical Progress.

Small Doses Frequently Repeated.—I was called some months since to a case of nephritis of some years' standing, in which the patient had been accustomed to take two Rochelle powders—one immediately after the other—to produce a laxative effect; but when I saw him he had intense headache, constipation, and vomiting, of the explosive kind so often seen in such cases, therefore his usual laxative could not be retained. By reducing the dose to one-eighth or one-quarter of a powder every quarter to half hour I was able not only to check the vomiting—any effervescing remedy in small doses is admirable for vomiting—but also to produce abundant alvine evacuations, when only one powder in all had been given. This leads me to call renewed attention to the great value, as a rule, of small doses frequently repeated, or larger doses at longer intervals.

This subject is a very important one—one regarding which it is very difficult to establish any arbitrary rules. In the case of chronic diseases, where it is necessary to continue the treatment for a long time, the plan of administering the medicine in larger doses at intervals of five or six hours is probably the best one which can be adopted. For example, if prescribing some preparation of iron in a case of anæmia, it would be unnecessary to give it oftener than three times daily. Again, in certain cases it may be desirable to produce the full effect of the drug at a single dose, as in the administration of a cathartic, or of an antipyretic to reduce temperature. In other cases, however, it is desired, in administering medicinal remedies, to keep up their continued effect, and the question arises whether this can best be accomplished by giving in smaller doses at frequent intervals than by giving them in large doses at much longer intervals, the total amount of the drug in the end being, perhaps, the same in either case. It is a well known fact that certain drugs become absorbed and produce their effect upon the system in a very short time, and they may also be eliminated very rapidly, while others act slowly and are eliminated after a longer interval.

The first drug to which I call attention is chlorate of potash. It may not be unknown that this drug has at times been administered in sufficiently large doses to produce a dangerous inflammation of the kidneys. This danger can be avoided by administering in small doses frequently repeated. In writing the prescription, a teaspoonful of the solution may be made to represent as much of the drug as one may wish to give; or, if it be in a more concentrated form, the patient may add water to it. Grain doses given every half-hour in scarlet fever, diphtheria, tonsillitis, etc., will produce the same results as larger doses, without the danger of the evil effects resulting from the accumulation of the drug in the system, as sometimes happens when it is administered in the ordinary way. Indeed, I believe they will produce better results upon the throat inflammations.

For the treatment of neuralgia, or to procure sleep, chloral is frequently given in large doses, as from five to eight grains, repeated every hour or two until fifteen grains are taken. What I consider a better mode of administering is to give a grain, prepared either in liquid or pill form, every half-hour until the neuralgic symptoms are relieved or sleep procured. A solution of which a teaspoonful represents a grain of chloral may be made, having scarcely any bad taste. I may here remark that one of the important advantages connected with the frequent repetition of doses is the fact that the medicine may be so largely diluted with water or other vehicle as to be rendered comparatively tasteless, and harmless to the mucous membrane of the stomach.

One is often called upon to treat very obstinate cases of urticaria. The plan ordinarily suggested is to give alkalies, as the bicarbonate of sodium, or magnesium; but two grains of sodium salicylate every hour or half-hour will usually effect a cure even in obstinate cases, except those of a chronic nature. Two grains of sodium salicylate administered in a teaspoonful of water is almost tasteless, and may be given without producing disturbance of digestion. Urticaria is often caused by the administration of full doses of balsam copaiba in cases of urethritis, or inflammation of other mucous membranes, and it may seem strange when I make the statement that a single drop of the same drug given every half-hour will sometimes control urticaria. I have no explanation to offer, but I make the statement not alone upon the authority of others; I myself have observed the efficacy of the treatment, although not so frequently as in the treatment by sodium salicylate.

Fowler's solution, half a drop given every half-hour for six or eight doses, will often relieve the vomiting which occurs after a debauch. It will also relieve the morning vomiting of drunkards, and is of decided benefit in the sympathetic nausea and vomiting of pregnancy.

Jaborandi has been given in large doses

with a view to exciting perspiration in cases of Bright's disease and other affections, but a very serious objection to its administration in this manner is that it sometimes has a very depressing effect upon the heart's action. Now, five- to ten-minim doses of fluid extract given every hour or half-hour will produce marked perspiration without causing any unpleasant effects upon the heart—so also will tiny doses of pilocarpine. I sometimes combine tincture digitalis with either the pilocarpine or the jaborandi, with a view to counteracting any possible influence which either drug may have upon the heart. So dangerous do I consider large doses of jaborandi that I often hesitate long before administering it, especially in the uræmia of the puerperal state.

The amount of the medicine administered is not so small as may at first be supposed, especially if is taken into consideration their strength and the frequency of repetition.

I am often called to see cases of supposed croup, but which in the majority of instances prove to be cases of false croup of a reflex origin. Ordinarily, one is able to relieve these by giving a teaspoonful of a solution of atropine sulphate, one one-hundredth of a grain in a goblet of water, every hour. It is possible the remedy acts slightly as a stimulant of the respiratory center; it is also possible that it has some influence upon muscular contraction or relaxation; at all events, clinical experience proves that it is of benefit. The dose may be repeated every hour or half-hour, according to the severity of the attack. If the child's face begins to flush and show signs of the physiological effects of the drug, the dose can be reduced in frequency. It should be remembered that when thus administered the equivalent of a full dose will soon be reached. One should not forget also in these cases to give an emetic, if there is anything in the stomach which may be causing the spasm, or a cathartic if there be reason to suspect intestinal disturbance as the cause.

The bromides are largely used in the treatment of nervous and febrile disturbances in children, but an objection thereto is the little patients do not take them readily, because of the taste; sodium bromide is, perhaps, as little disagreeable as any. This objection can be avoided by giving small doses frequently repeated; for instance, a few grains dissolved in half a tumblerful of water, a teaspoonful representing a half-grain, or a grain even, administered every ten or fifteen minutes. When given in this manner the bromides often prove of great benefit in the nervous disturbances arising from dentition and other causes, and in relieving the fever which, in children, usually attends a slight degree of excitement of any kind. I have seen an elevation of the temperature in children where it could not be traced to any other cause than the excitement incident to their afternoon play. A temperature which might indicate a sickness of considerable gravity in the adult, if it occur in a child may be of comparatively little importance. In such cases the bromides, administered in small doses (say a grain or two at intervals of ten or fifteen minutes), will often prove of great benefit.

I began the use of some of these remedies administered in this manner on the recommendation of others, some of them personal acquaintances, some of them writers in medical periodicals, and in a somewhat skeptical frame of mind, thinking that the effect which they produced was probably due to the moral influence upon the patient, or that it had no foundation in fact, it being a mere coincidence that the drugs were administered at a time when the patients would have recovered in the absence of any treatment; but having seen benefit follow their administration repeatedly, I concluded they must have a wider range of usefulness, and began to use them much more frequently.

One often meets children of a nervous, excitable frame of mind who are perhaps naturally of a sensitive, nervous temperament, who are disturbed by the slightest noise, and unable to go to sleep before ten or eleven o'clock at night. In such cases it is necessary to give a nerve sedative. An excellent effect will be produced by chamomile in some one of its forms, as the tincture, administered in minim doses, every fifteen or twenty minutes. It is tonic as well as sedative; it is a better sedative in such cases than hydrate of chloral, which is liable to affect the digestion; it is harmless when given in larger doses. Put a teaspoonful into a half-tumblerful of water, and let the child drink it freely.

One of the most important remedies which can be administered with great benefit in frequently repeated doses is ipecac. A teaspoonful of syrup of ipecac is likely to produce emesis; but it is also a fact, regarding which I was at first quite skeptical, that a single drop of wine of ipecac will often arrest obstinate vomiting. It should be repeated every ten or fifteen minutes. When administered in this manner I have often known it to relieve vomiting from different causes, among which are pregnancy and subacute gastritis. Children often vomit from very slight causes, and are liable to suffer

from diarrhœa and vomiting which have no other assignable cause than disturbance of digestion. A single drop of the wine of ipecac, repeated every fifteen or twenty minutes, will often produce the most marked relief, both from the vomiting and the diarrhœa. Administered in this manner the drug is not nauseous, and is easily taken.

Nursing children often vomit or regurgitate their food; this has been relieved repeatedly in my experience by giving them a tablespoonful of a solution of one grain of calomel to the pint of water every ten or fifteen minutes. In order to dissolve the calomel should first be put into an ounce of lime-water, and then into the pint of pure water. One-twenty-fourth of a grain of mercury with chalk, administered every fifteen or twenty minutes, is often of great benefit in the vomiting and non-inflammatory diarrhœa of children. Where the diarrhœa is accompanied by mucous passages, indicative of a certain degree of inflammatory action, or enteritis, benefit will be derived from the administration of one teaspoonful of a solution of bichloride of mercury (corrosive sublimate), one grain to the quart, every hour. The dose may seem very small, but it must be remembered that the dose for an adult is only one-sixtieth to one-thirtieth of a grain, and when administered in this manner the full dose for a child is reached within a few hours.

Another extraordinary statement, which at first seemed to me to be fabulous, but which nevertheless is based upon clinical facts: Put a grain tartar emetic into one quart of water; teaspoonful doses of this solution every half-hour will prove effectual for the relief of the wheezing and cough accompanying a slight bronchitis in children.

A single drop of tincture nux vomica given every ten minutes will often produce most marked relief in sick-headache not of a neurotic origin. It should be given immediately after or soon after meals.

It is well known that cantharides, when given in large doses, is liable to cause inflammation of the urinary tract; but it has been found that a single drop of the tincture every hour will in many cases relieve vesical catarrh.

Digitalis is much used in cardiac disease. Ordinarily it is administered in considerable doses only three or four times a day; but I do not hesitate to say that the frequent repetition of small doses will produce much more benefit than larger doses at longer intervals. A single drop of tincture digitalis, given to a patient suffering from symptoms due to organic heart disease when digitalis is indicated, administered at intervals of an hour or half-hour, according to the severity of the symptoms, will often give greater relief than larger doses, and without liability to ill effects.

For the diarrhœa of children, accompanied with slight inflammation, straining, and the passage of jelly-looking matter, but not true dysentery, five drops castor oil, given every hour in water with sugar and gum, is an excellent remedy.

A physician who is an authority on venereal diseases says he has given greater relief in a short time in cases of orchitis and epididymitis by the administration of two-minim doses of tincture pulsatilla every hour than by any other mode of treatment. I can testify to the great benefit derived from the drug administered in this manner in dysmenorrhœa not of a membranous, obstructive, or neuralgic character.

One of the most distressing symptoms from which many women suffer at the menopause is flatulence, and a sensation of fluttering or palpitation at the pit of the stomach, an effectual remedy against which is the extract calabar bean in one-fiftieth-grain doses, repeated every half-hour for six or eight doses. It may be repeated in the same way after stopping it for three hours.

In cases of amenorrhœa not dependent upon anæmia, benefit may be derived from minim doses of fluid extract ergot administered every half-hour for five or six hours the day before the flow should begin, and again on the day on which it should occur. Contradictory as it may seem, when administered in the same manner the fluid extract of ergot is of benefit in cases of excessive menstruation.

Aconite is one of the drugs to which all probably have occasion to resort frequently. It has for a long time been used in quite small doses, but not so frequently repeated as it might be with benefit. There are many cases of febrile movement, with dry, hot skin, a full, bounding pulse, the mucous membrane of the throat and nose probably dry—cases in which the febrile movement is not the commencement of one of the continued fevers; the tincture of aconite, one-third to one-half minim given every fifteen minutes, will be found of decided benefit. Visiting the patient shortly after the commencement of this treatment the physician often finds him in a little perspiration; the medicine may then be administered at longer intervals, every half-hour or longer, according to the indications. The tincture aconite, administered in a similar manner, is also useful in cases of commencing so-called "cold in the head." It is likewise useful in cardiac

hypertrophy with palpitation, severe headache, and disturbances of the nervous system due to increased force of the heart-beat.

Two minims of the tincture hamamelis every half-hour will often control hæmorrhages. I was at first inclined to look upon this statement with a great deal of distrust, but have since tried it in cases of hæmorrhage from the nose, from the uterus, and in the bleeding of hæmorrhoids, and found it of great benefit.

Tincture belladonna in minim doses, every half-hour, is a good remedy in cases of nasal catarrh, and bronchitis accompanied by free secretion. Cease to give the drug for a while after eight or ten doses have been administered, as it is less quickly eliminated from the system than the other medicines of which I have already spoken. In cases of pulmonary œdema with failure of heart power, belladonna thus administered is of benefit in retarding the exudation of serum, and in overcoming the failure of heart power.

Two grains of the chloride of ammonium, combined with ten or fifteen minims of tincture cubebs, given every half-hour, oftentimes controls acute pharyngitis and superficial inflammations of the other tissues about the throat. For inflammation of the throat dependent upon a gouty diathesis, add to this mixture ten minims ammoniated tincture of guaiac, and administer every hour.

In the headache of migraine, one grain citrated caffeine given every half-hour will often produce most marked relief.

In neuralgias about the face or head, three-minim doses of tincture gelsemium every half-hour will often act almost miraculously and leave no ill effects.

For certain kinds of headaches (especially those which are periodical and not of malarial origin), fifteen-minim doses fluid extract guarana given every fifteen minutes will very frequently relieve. If it does not relieve in four doses, increase the dose to thirty minims. —A. E. Eddy, in *Massachusetts Medical Journal.*

A Case of Hæmophilia.—A boy sustained a wound in the region of the temple about three-fourths of an inch in length, and during two days various attempts were made to stop the hæmorrhage without effect. The boy was completely exhausted and feverish. I took from a vein in the arm of a healthy woman with a hypodermic syringe about a drachm of fresh blood, and injected into the bleeding wound; the foreign blood clotted in a short time, and the hæmorrhage was arrested after a light protective bandage was applied. The clotted foreign blood acted like an elastic tampon in all the interstices of the wound, or else the foreign blood supplied the particular ferment for thrombosis of the vessels which is deficient in the blood in cases of hæmophilia.—Bienwald, in *Deutsche Medicinische Wochenschrift.*

Reading with Defective Vision.—Karl Holler records a few cases of defective vision arising from various causes and of stationary character who were unable to read. Among these he mentions corneal opacities of the vitreous, or lesions resulting from affections of the choroid, retina, and optic nerve. Of course, the patients that can be benefited are limited. He tests by means of an ordinary spectacle frame, which carries on one side a screen and on the other a plus glass of from 15 to 30 D.; this glass is mounted at the end of a short aluminum tube, two inches long, blackened inside and out. By this means the patient is enabled to read ordinary print by passing it in front of the eye. Of course the field of vision is necessarily limited.—*Annals of Ophthalmology and Otology.*

Eleven Months' Pregnancy.—Wigodsky reports protracted gestation in a multipara aged twenty-eight. The last period was on September 7th, the fœtal movements were first felt at the end of January, and labor occurred on August 13th. Pregnancy otherwise natural. Forceps delivery, delayed by great breadth of shoulders. The fœtus was a living anencephalus.—*British Medical Journal.*

Aneurysm Simulating Spinal Disease.—A woman thirty-seven years of age had been advised to seek mechanical treatment for spinal disease. The principal symptoms were radiating pain in the back, loss of flesh, aphonia, and occasional dyspnœa. Examination revealed a pulsating tumor at the lower part of the carotid triangle and a decided aneurysmal bruit.—Ketch.

Anent Headaches.—Those of nasal origin are commonly present in the morning on awakening; those due to eye strain come on later in the day and after using the eyes.—*Medical Summary.*

Pneumonia.—The appearance of labial herpes is a favorable sign.—*Exchange.*

The Medical Age.

Vol. XV. DETROIT, AUGUST 10th, 1897. No. 15.

Original Articles.

FATTY ILLS AND THEIR MASQUERADES.

(V.)

BY EPHRAIM CUTTER, M.D., LL.D.

Unless there are some special indications demanding, alcohol should not be continuously used in cases of fatty degeneration. Employed as a beverage it acts as a cause of fatty degeneration, for not only is it a carbohydrate and hence easily transformed into fat, but it likewise interferes with nutrition and other functions of the cell tissues, to the production of fatty ills,—as seen in the toper's cauliflower excrescent nose, in fatty and fibrous livers, etc.

Of like character to alcohol must be considered carbohydrate foods, since when taken in long-continued excess they undergo alcoholic and vinegary fermentation in the alimentary canal, as shown by the alcohol yeast plants, the vinegar yeast plants, and the CO_2 which always goes with alcoholic fermentation, and is seen in raising bread with yeast. Or to reverse this statement: The presence of CO_2 gas in the alimentary canal proves the presence of alcohol, because one is not evolved by the yeast protoplasm without the other from fermenting carbohydrate foods. Indeed, I believe in the statement that the teetotallers who suffer from the brewing of alcohol CO_2 and vinegar in sour stomachs are more numerous than those who similarly suffer from intoxicating distilled liquors. It often happens that when total abstainers, bloated with CO_2 gas and showing signs of fatty ills, are taken off from their carbohydrate foods altogether they will act and feel as much prostrated as topers when their drams are cut off. This is also true of some patients with the varied forms of tuberculosis. Vegetable foods made up chiefly of starch and more or less sweet juices will ferment after eating, especially when eaten raw, which arises partly from the fact, frequently proved, that both alcoholic and vinegar yeast abound in and on the skins or tegumentary covering of such vegetables. Cooking destroys these yeasts, which is one reason why cooked foods are as a rule more digestible than raw.

It should be said here that perfectly fresh fruits, plucked from the plant, are much less fermentable and of course more easy to digest than when long removed from the source of growth,—all housekeepers know that freshly picked vegetables are the best. I once knew a farmer who would gather green corn in the field, and after a keen run would deposit the ears in boiling water prepared by his wife, and cook only a few minutes, whereby was obtained a most palatable, delicious, delicately cooked, and extremely digestible product. I think it would be better to steam the maize where it grows. Even thus half-cooked, for canning it would keep for a long time (as does fish), preserve a fine flavor, and be ready to serve with a little more cooking. The principle seems to be that the heat of cooking destroys the peripheral and interstitial yeasts, so that the metabolic changes that fermentation produces in organic substances are avoided; changes which culminate in the wilting and decay of plants and animals when removed from their sources of life.

Intestinal gases — hydrogen, sulphhydric, phoshydric, etc.— arising from the fermentation of meats are more poisonous than the common alcoholic carbon dioxide; they paralyze more quickly and profoundly. Fibroid and sclerotic degenerations follow the action of these gases more readily than fatty degeneration does. Meat dyspepsia is sometimes met with, and is to be treated by vegetable food and by nourishing enemata of animal food.

The probabilities are that every vegetable

and animal food has its own alcoholic and acid yeast. The botanical features may be alike, save as to size; but the protoplasm differentiates the products, as in cases of the epithelial protoplasm of liver, parotid glands, pancreas, kidneys, ears, and so forth.

Another general principle of treatment is to quicken the circulation and thus quicken the functions that have been impeded or retarded. This may be done by employing quickening foods, such as hot water at the temperature of tea and coffee, one pint taken by the mouth one hour before each meal and on going to bed,—distilled water is best, as it more readily dissolves out all impeding gravelly deposits found in the system, and at the same time quickens the circulation while removing mechanical impediments. Hot water causes peristaltic contractions of dilated stomachs and intestines, thus removing paralyzing gases by belching or voiding; promotes peristalsis downwards and sometimes upwards, as lukewarm water does usually; dilutes the blood, so that it is less viscid and requires less force for the heart to propel it through the capillaries where the retardation of functions occurs, and whence is the very citadel of fatty degeneration.—This is a very important point! Consider that the average red corpuscle has only one forty-eight-thousandth inch leeway in the capillaries, and that, on a modern estimate, the average human male adult body capillaries would extend in a straight line, if it were possible to place them end to end, more than 24,000 miles—*i.e.*, around the earth! From this it is seen that the heart has no slight work in keeping up the blood circulation, no matter if the capillaries average one three-thousandth of an inch in diameter; hence also may be inferred the value of hot water in lessening the work of the heart, and quickening the capillary circulation exactly where it is wanted. Hot water washes out the liver, which is a combined or compound gland, double if not triple, dense in structure, complex in architectural design, and secreting bile, which is one of the most viscid secretions in the body; the washing out is so effectual that usually the fæces will be stained black for more than six months after patients begin and continue to use it. The liver is specially liable to fatty degeneration, as it has normal fat-secreting epithelia, —the bile is full of cholesterine and other fatty bodies,—and its canals are tortuous in a somewhat inelastic histological environment.

Probably the good of the hot teas of our grandmothers, and of the *ptisans* of the French, is due more to the hot water than to the herbs, because the former, employed without the latter, has been followed by equally good if not better results.

The use of hot water in colds shows how it quickens the circulation. A "cold" is a very complicated matter, but it is enough for the present purpose to say that the blood is driven, by the "cold" contracting the capillaries of the surface, in and on to the air passages, as a general rule perhaps, because they are so much exposed and have no rest from their indispensably vital and continuous work. Congestion follows and the circulation is impeded. Now if, in the pre-stages before the plastic products of inflammation have been poured forth, hot water is copiously drank once an hour, or oftener, not only does it warm the chilled outside surface, but the inside also. The dermal capillaries are dilated; sweat is organized by the epithelia of the sudoriferous glands; urine is voided in increased amount; the internal congestion is relieved (unless too long and firmly seated, and the tissues are on fire with inflammation, and even then the hot water comes not amiss) for one reason because there is not blood enough drawn from the rest of the system to keep up the congestion.

Hot water is not a dangerous remedy, as some aver positively, unless one is immersed in it; neither does it parboil the alimentary canal, or produce fat as some have alleged, on the strength of an experiment whereby hot water was *injected* into the stomach of a dog and produced ulceration. Swallowing, however, is not injecting; and I have seen ulcers of the stomach, but they were not in hot-water drinkers.

From the prevalence of gravelly diseases, as rheumatism, asthma, gout, and urinary calculi, which impede circulation and thereby predispose to fatty ills, it would seem as if people did not drink enough water to keep the body salts in solution. It is not reasonable to expect gravels to be deposited when there is water enough to hold the saline bodies in solution, nor fatty degeneration to oc-

cur as commonly as now. Again, the crematories show that a very large part of the human body is made up of water in organic combination; it is also shown in the destruction of dissection subjects by desiccation. It may therefore be insisted that a large supply of water is needful for normal human life.

To sum up, if it is desired to quicken the circulations of blood, chyme, glands, alimentary canal, osmosis, nerves, so as to keep the body systemic, literally in good running order, use hot water plentifully. If one is cut down to only one resource in disease, he should by all means hold on to hot water, which alone has cured cases irresistible to other treatment.

Another quickening food is beef, because the heart so promptly responds to and is so greatly strengthened by it. It is unnecessary to increase the frequency of the pulse in order to increase the force of the circulation, but it is necessary to increase the power of the heart without quickening the beat.—The vernacular expresses this idea in classing beef as a "hearty" food. If people, instead of being afraid of "hearty" food, would use more of it, thereby strengthening the heart, the prevalence of fatty ills and their masquerades would be greatly obviated. Next to beef come mutton and lamb; next eggs (especially the whites), game, codfish, fresh lobster, scallops, clams. But beef is the best of all to quicken a retarded or impeded circulation, which is the main aim.

Another general principle in the treatment of fatty ills is the conservation of vital force or dynamis, so as to have more power to run the body machinery and functions. All schools of medicine adopt this principle, no matter what they profess to do or teach; for all inculcate rest, and the human body is ever manufacturing and storing force while at rest. It is so also with animals. As I write I am living on a high ridge where there is heavy travel; the hill is so steep and sometimes so muddy that loaded teams often get stuck. Wise teamsters in such cases simply pause at the foot of the hill and give themselves and teams a longer or shorter rest, whereby nerves and muscles are getting reinforced and are re-storing up dynamis. After a little the teams carry the load. This shows that force is acquired from the food in the body all the time. If not, how could such rest help? It must be that our bodies are storage batteries that accumulate power from within, power which can be so used up as to cause a stasis of functions. The horses in question could be driven to death, as some people drive themselves.

Now when the functions of the body tissues are so impeded as to run into fatty ills because of the loss or waste of force, what more sensible way is there to obviate than by rest? Rest—from toil outside the body, as on Sabbath days; from toil inside the body in the functions of life, repair of waste; by the use of easily digested food; by assuming a recumbent posture, where the heart does not have to lift a hæmostatic pressure of a column of blood the height of the body; by relief from the tight ligations and environments of closely-fitting clothing, as garters, corsets, waistbands, boots, shoes, collars, ill-fitting suspenders, trousers, waistcoats, etc.; by being in one even temperature in bed, when a standing posture gives a difference of 15° F. between the head and feet; by relief from the cares and anxieties of business, work, worry, or pleasure; by having the body lie on the largest possible amount of surface; by being relieved from the weight of the body on the feet; by rest when tired out and the body is as it were cannibalized by consuming its own capital and reserve of capital. All these savings in the expenditure of life force accumulate a large power to run the functions, which were degenerating, it may be into fatty ills; Nature, having thus saved force, uses it to stop the fatty ills.

What is life but a question of expenditure of vital force? What is constitution but the force conferred at birth, with which to run all our organs and tissues in our life-work, and which is ample if wisely expended? How can the constitution be saved better than by proper exercise and rest? All schools of medicine commend the conservation of force by sending patients to bed, withdrawing them from all abstracting and distracting influences. Note that sick cats and dogs, as well as many other animals, curl themselves up in a corner or some snug retreat, and after awhile recover health, simply by saving force for Nature to repair with!

But it will not answer to rest all the time;

some exercise is necessary; many a fine horse has been ruined by idleness—fatty degeneration from high feeding and disuse. This statement covers the ground, as it is easy to understand how exercise would have prevented the fatty ills.

Exercisal motions promote the circulation of the blood, and of the osmotic movements connected with nutrition, the proper organization of glandular secretions, downward peristalsis, to name no more. If the sufferers from post-partum convulsions had been obliged to do housework during pregnancy, they would probably have escaped acute fatty degeneration. How often do active business men, retiring after the age of sixty, and doing nothing, die from fatty ills! It is a great art to know how to grow old gracefully, and to manage prophylactically to have exercise enough to avert fatty degeneration.

Exercise for the fattily degenerated must be managed with care. Usually such persons exercise with gusto at first and take hold with vim, but soon the fatty heart shows signs of weakness; if the movements are violent and prolonged, the heart will sometimes fail, and death ends the case. Such should be cautioned to keep strictly within their strength limits, and to stop at once all exercise the moment they observe weakness. Hence all competitive physical or mental contests must be avoided by the fatty ill, who should recognize their limitations by their own cerebrations.

The following remarks on "Aids to Longevity" from *The Hospital* (London) shows the difference of climate adding years to life by a light and dry atmosphere; one has only to pass a winter in London to appreciate the significance of this quotation; for the atmosphere of this city is very depressing when the fog is so thick at 10 A.M. that the street gaslights are kept burning.—It should be remembered that apparently small causes tell for good or bad in those who are advanced in life—the very time for fatty ills:

> There are two sorts of pressure that tend to shorten life: Blood pressure within, and: Atmospheric pressure without. The latter is an especially important factor in a humid climate. In advancing age the circulation of the blood and lymph tends to become slow, and the enfeebled (fatty) heart finds its embarrassments increased by this condition. Especially do the more vascular organs, such as the lungs, the liver, and the kidneys, put skids on the wheels of the blood circulation.* Plainly, then, an important condition of cardiac easement, and therefore of life prolongation, is the maintenance of an uncongested state of lung, liver, and kidney.† Thus are internal pressures relieved and thus is cardiac energy conserved. Of almost equal importance, at any rate in Great Britain, is the question of atmospheric pressure and moisture to aged persons. Situations which are at once low-lying and damp give of course a maximum of atmospheric pressure. Such a pressure weighs down at a single stroke body, mind, and life. The difference to aged persons living at the sea level and five hundred feet above it, between living in a moist atmosphere and living in a dry one, is sometimes quite incalculable. Not seldom may life be lengthened five or even ten years by living in an atmosphere both light and dry. These physiological considerations are commended to the aged, and to the physicians of the aged.

In other words, the excessive atmospheric pressure retards the circulations and predisposes to fatty ills.

Again there is the psychological stimulus of ideas. In law and war mind often molds results; in murder trials the intent convicts.—General Grant commanded with the idea that war meant kill or be killed. Those who treat fatty ills must understand that it is a fight for life, and the patients must kill or be killed.

My wife's brother was one of the Ninth Massachusetts Battery, which withstood the famous Pickett charge at Gettysburg, with sixty out of eighty men killed, wounded, or missing, and sixty out of eighty-six horses killed, wounded, or missing! He states that he was so inspired that he felt no fear, could calmly dodge cannon-balls as they came, and was not moved when one took off the head of a comrade next him! This admirable courage is paralleled when patients, away from the excitement of battle, stubbornly fight for life with fatty ills for weeks, months, and years. Their wills are determined to kill the disease, and these wills stimulate the life forces of soul and body to victory. I have seen a patient with Bright's disease die when there was no will to fight it, no confidence in the physician, and no pain to stimulate to action. The most difficult cases to handle

---

*That is, the conditions of fatty degeneration are set up.—C.

†Favorite seats of fatty ills.—C.

are those which correspond to conventional (I am sorry to say it) professional ideas, that teach the shibboleth "No pain, no disease," which is about as sensible as to affirm that there is no light where there is no eye to see; as if the effulgence of the sun was caused by organs of sight! Destroy all eyes in the universe, the sun would shine the same.

Will is not everything, however. A widow with children nearly grown was a faith-curist. Her oldest son awoke one morning with fever, sore throat, and insisted he should stay at home, as he was too ill to work. "Oh, no," replied the mother; "go right along about your business, and it will get well of itself." He went, and the next day died!

There is no doubt much useless expenditure of force by worrying—force which if conserved might often save the sick. But in fatty ills the cure takes much time, and as one well puts it, "Not only must the physician believe, but he must make the patient believe in the treatment and bend all energies to the work." Force is lost by not having the confidence which inspires faith and hope, and, to repeat, this very force may be just what is needed for the cure; when this is so, then the cure is lost by lack of this faith, and hence the great value of the stimulus of ideas. This principle works even with medical men. A young physician settled in a place I had recommended, but he proved a failure. Afterwards he told me of it and related his first obstetric experience. From the bag of waters he diagnosed prolapsus of the bladder, and sent in consultation for the "old doctor," who was of course a rival and regarded him as an intruder. There was no trouble with the case, and it was normally delivered. Said the young doctor: "I made up my mind beforehand that I should fail!" His after history was sad. He drifted from his profession into keeping a candy and tobacco store; and when I tried to help him he said it was "of no use;" he finally suicided by opium. The moral of these things is that if doctors and patients go to work with the idea to have fatty ills kill, death must follow as a general rule. This was so in the case of a very old lady years ago in my father's practise. She sent for him in her fatty ills, saying that she "was going to die this time sure!" "But," said he, "you pulled through before." "I don't care, I shall die," she replied, and she did! It is not generally advisable to undertake cases where they have no will to get well, nor to do as they are told. When the will flags, confidence may be retained by telling historical truths about the case, even though they may be unfavorable. Then, when the reports are favorable, they will be much more satisfactory, because it is known that the truth has been told and can be depended upon. This is a nice ethical point to handle in critical cases of fatty ills; as oil, albumen, casts, fatty epithelia, precede the feeling of malaise and illness, and should be removed before the soul failure.

It is bad when the patient loses confidence in his or her physician. Were it not that people have faith in God and meet together to get comfort from His worship, and from one another, the direst results would follow; the terrible fear that would replace this faith would cause deaths. History relates how, in ancient times, when a walled city was besieged and thought to be taken, the milk in a matron's breast was poisoned, so that her suckling perished at once. On March 19th, 1894, a woman with a seven months' babe had a mouse run up inside her skirts, which frightened her very much, and the child, never before ill, dieting solely on mother's milk, was in consequence ill all night with colic and diarrhœa!

I can personally testify that going to a prayer-meeting is a very good way to gain strength and to banish a distressed and troubled state of mind, for it literally furnishes strength to the weary soul and body. On these principles a level head and determined spirit will inspire hope, so that crises in fatty ills will be successfully met with which otherwise might prove fatal.

Another form of treatment of fatty ills is by the conference of force or *dynamis*. In King David's time of fatty ills he married a young wife, Abishag; "But he knew her not,"—she was specially to impart vital warmth and force. Thus "conference of force" was understood 1015 B. C.

When the woman with the twelve years' issue of blood touched our Saviour's garment's hem from behind and was healed, he turned and said, "Who touched me? . . . for

the virtue (*dynamis*) has gone out of me." It was a conference of divine dynamos.

In 1873 I lay abed one hundred and ten days with a fractured patella. Friends and patients came to do something for me. I suffered greatly, and as anodynes amounted to nothing I asked them to rub the well knee. This done the pain would entirely subside in the fractured knee! Years elapsed before I understood that the relief afforded was by the conference of force.

It was said of the elder Pitt that none could come in contact with him in his cabinet without going away feeling stronger than before. A member of the British Medical Association present at the Leeds (1889) meeting reports that on his way home he met a large concourse of people surrounding a man who was lauding the wonderful cures he could perform very quickly of chronic diseases. He was using all the arts of barbering, livery stabling, jewelrying, oratorying, and tailoring. His hair was trimmed and dressed to perfection; he had equipages of striking magnificence; he was perfectly resplendent with gems, jewels, and gold; and was tonguey and eloquent. The medical man says further that in response to earnest invitations a large, heavy man hobbled in on crutches, evidently with great effort and much pain; he was assisted upon the stage and partially disrobed. The brilliantly dazzling healer then proceeded to rub him vigorously, and kept it up with energy for twenty minutes, when the cripple got up with ease, walked off crutchless, and said he was cured! The rubber was all of a heat and sweat, tired out from his exertions. Now the medical man said that there was no doubt of the cure, but that he could not see clearly the *modus operandi*, and asked for an explanation. I give one. Allowing there was no humbug, nor hypnotism, nor deception, for the sense-striking environments strongly savor of the surroundings of jugglers, who make no secret that they deceive the senses of observers, or hypnotize the audience, it seems that the healer conferred force or dynamis, which bridged over the patient's lack of it; the active or passive movements helped as in massage. Thus I have myself many times relieved the severest neurasthenic pain by simply laying on hands without movements, and conferred force. Hence I am inclined to explain this and other reported similar cases as instances of conference of force.

Such methods do not always work. The late Judge Billings, of New Orleans, told me how his brother-in-law, sick with fatty ills, received a visit from a doctor in New York, who came in a six-horse chariot, with all fashionable appointments, and received $300, but no good resulted.

I have often seen my father take an eighteen-months-old, teething, cross, crying and restless babe from the arms of its mother, when it would immediately quiet down and go to sleep! Twenty years later this was explained to me simply by the facts the tired-out matron had no force to confer (more likely she withdrew force from the babe), and my father being rested at once passed his force to the infant. I think that the success of practitioners depends somewhat on the quality; and no matter how little or much they know, they impart force to the weak, who are better for it, and hence feel the need of such physicians This may explain the success of those with whose principles one cannot agree.

In its special application to fatty ills it is easy to see how conference of force will quicken the circulation and other functions that have been impeded or hindered. Osteopathy, which it is claimed cures thousands annually by manipulations of all sorts of contacts of strong persons with the patients, must confer force and thus account for its recoveries. Also I think that the secret of massage lies in the conference of force more than in the physical and mechanical results of manipulations.

Again, may not Sir Humphrey Davy have had this power? It will be recalled somewhere about 1800 A.D it was thought that the newly discovered nitrous oxide gas would cure everything, and Sir Humphrey went to Guy's Hospital, London, to administer it to the hæmiplegic as an experiment. There was a good amount of paraphernalia and preparatory arrangements; it took some time to fix the apparatus and make the gas in the ward by the patient's bed. When all was ready Sir Humphrey placed a thermometer under the patient's tongue. When the record

of temperature was taken and the thermometer removed the sick man, deeming he had received the treatment expected, remarked he felt "very much better." Sir Humphrey at once took the cue and said, "Well, that's good; we will come to-morrow and make a second trial." This was done, repeating all the details as before. The third time the paralysis was cured.

It is quite certain that force is used up in massage; this was shown in the exhaustion of the peripatetic healer aforesaid. I have had my right hand weakened and partially paralyzed for a fortnight by laying it too much and too long on a neurasthenic patient. Also I knew a masseur who rubbed so many patients one day that he suddenly died.

There is some stimulus from massage as in statical electricity; the circulation is advanced in the capillaries and veins; adhesions are torn up; the blood is drawn to the surface, rubbed, and so forth.

If, as some claim, there is animal magnetism evolved in massage, then it must at the slightest contact go through the body like electricity, making a short circuit. Be this as it may, I have no quarrel with masseurs; they all claim to stimulate impeded and retarded circulations, whether of blood, lymph, nerve force, or osmosis in cell biology: and this is what we are after in the treatment of fatty ills and their masquerades. But so long as masseurs magnify their ideas so as to belittle the medical profession, it is well to know the exact standing of massage.

A distinguished elocutionist discarded educated physicians and employed a masseur for everything; and the latter undertook even to relieve retention of urine by rubbing. Think of the agony induced by a distended bladder massaged for two or three days! Finally, a physician was called who catheterized him successfully, but too late to avert death! Had this savant lived in Japan three thousand years ago he would have had a better chance of relief, for Japanese catheters three millenniums old have been exhibited. One of the best ways to break up perverse and obstinate wills that are reasonably insensible to persuasions and commands is the use of the whip or nursery slipper, which are exaggerated forms of massage, certainly revulsing sensation and withdrawing blood from the congested centers of thought which make the trouble! Indeed, reasoning in this way when our children were young, I persuaded my wife if they got into obstinate "tantrums," with head hot and flushed and face red, the application of cold water to the head would be preferable to the rod or slipper, because it would cool off the heat and drive away more quickly and safely the cerebrally congested blood. It proved so; for the cold water no sooner cooled the head than the child was manageable. Evidently the effect was due to the force saved by the relief afforded to brain congestion. But this stimulation does not fully apply to the treatment of fatty ills, where there is a loss of power due to inherent tissue destruction and weakness. The whip, as once suggested by a patient with Bright's disease, was not applicable, on the principle that it is useless to kick a dead dog with naught to respond to the impetus!

The good conferred by massage in fatty ills must be in the conference of force upon the disturbed processes of laying down and taking up tissues (metabolism), so that they will go on normally, and so that healthy tissues shall take the place of fat. This will be done, provided aliment is furnished that affords normal amounts of nutritive substances which can be assimilated, taken in, and laid down with a minimum expenditure of vital force, provided that there is dynamis enough to "run the machine."

A regard to this principle would render massage even more useful, unless the idea is to live in physiological sin, and have masseurs to help pull the sinners out of their sin only to fall back again, and so on. This doctrinal principle is not yet received, but I am convinced of its truthfulness and hopefulness from my own experiences, which I cannot ignore or deny.

PUERPERAL ECLAMPSIA.

BY S. RUMBLE, M.D.

Theories and preconceived ideas, when put to practical clinical test, are often exploded and found to be utterly worthless. Perhaps more theories have been advanced as to the

cause of puerperal eclampsia than any other known disease, and yet from the present status of our knowledge we can attribute puerperal eclampsia to no one specific cause. Congestion of the cerebro-spinal axis was long held to be the causative factor in producing the eclamptic seizure; and hence our predecessors were warm in the advocacy of bloodletting and other depleting remedies.

Whatever may be the cause of puerperal eclampsia, be it uræmia, cholæmia, hydræmia, a toxæmia of any kind, or a reflex irritation, it is obvious the cause producing the convulsive movements acts directly on, or through, the medium of the motor centers of the spinal cord.

In my short career as a physician I have seen only six cases of puerperal eclampsia, no one of which I could attribute to one cause alone.

The nervous centers in the pregnant state are supposed to be, and doubtless are, surcharged with nerve force. I have seen one case of puerperal eclampsia which I could, barring a slight cholæmia, attribute to this theory alone. In reporting the following six cases I will state none of them had any prophylactic treatment,—I was called to every case except one after convulsions developed.

Case 1.—Called to Lizzie S——, colored, pluripara, aged 35, December 24th, 1889, at two o'clock. She had reached the eighth month of pregnancy and was seized that morning at nine o'clock with severe headache and pain in the epigastrium, immediately followed by a convulsion. I found her in a comatose condition, the fourth convulsion having just subsided. No dilatation, but cervix soft and yielding. I at once introduced an index finger through the os and began to dilate by sweeping the whole length of finger around between the amniotic sac and lower segment of the uterus. After dilating to the size of a silver dollar I gave a hypodermatic injection of fifteen minims of Norwood's tincture veratrum, which was repeated every thirty minutes until a full drachm had been administered; I also gave thirty grains chloral per rectum until two drachms had been taken.

The convulsions came at intervals of about one hour, and at six o'clock, during the clonic stage of a very severe one, there was an ominous gush which I thought was the rupture of the amniotic sac, but to my surprise I found the child and placenta lying between the woman's thighs. The uterus was well and firmly contracted.

The child was still-born. After caring for the patient I left a mixture of chloral hydrate and potassium bromide to be taken every two hours when awake; the patient was still in a comatose condition, with a temperature of 102.5°. I was very much chagrined at not being able to control the convulsions with veratrum and chloral.

Saw patient at 9 A.M., December 25th. She was still comatose; pulse 120, temperature 103°; had five convulsions since the previous evening, making a total of thirteen. I gave one-half grain of morphine with one-one-hundredth grain atropine hypodermatically, and continued chloral and bromide; emptied bladder with catheter. Saw patient at 6 P.M.; pulse was 100, temperature 102°; she had aroused from the coma and taken medicine and some nourishment. Chloral and bromide continued through the night, and Epsom salts ordered the following morning in dessertspoonful doses every two hours until bowels were freely purged.

At 4 P.M., December 26th, the pulse was 90, temperature 100°. Bowels and kidneys had acted freely. She steadily improved after this, and made a complete recovery. Her urine was loaded with albumen when I first saw her, which completely disappeared on eighth day after delivery.

This patient again became pregnant, was confined in about a twelvemonth, and died with an attack of puerperal eclampsia. The attending physician informed me he had used veratrum in heroic doses, performed rapid dilatation, and delivered with forceps.

Case 2.—Called to see Amanda O——, colored, pluripara, aged 30, weight 160 pounds, at 8 P.M. December 24th, 1889. She had completed the ninth month of gestation and was seized with convulsions five hours before, and was experiencing the fifth seizure. She was comatose; os slightly dilated. I bled her, taking twenty ounces from arm; also gave thirty grains chloral per rectum every hour until 150 grains had been administered—all without any perceptible effect on the convulsions, which continued to come at intervals of one to one and a half hours. I delivered her of a small, weak, but living child at two o'clock the next morning. I left her at 4 A.M. still comatose; pulse 100, temperature 102°. Requested husband to call me if the convulsions returned, which he did at 8 A.M., stating that she had had two since I left. I now gave a hypodermatic injection of one-fourth grain morphine with

one-one-hundred-and-twentieth atropine. Ordered a sedative to be given as soon as she could swallow. At 5 P.M. she was conscious and could take medicine and nourishment; there had been no convulsions after the morphine was given, and she had voided urine voluntarily. I ordered sedative to be given every three hours when awake and Epsom salts the next morning.

At 5 P.M., December 26th, the temperature was 99°, pulse 80. She made a good recovery and was up in fifteen days. Urine contained a small amount of albumen, which totally disappeared on fourth day after delivery. Child remained weak and illy-nourished, and died at ten months.

Case 3.—Called to Lizzie F——, pluripara, aged 25, at 5 P.M., July 4th, 1892. Had been attended by midwife three days previously and after a normal and easy labor delivered of a well developed, healthy male child. I found her in a semi-comatose condition; pulse 130, temperature 103°. She had already received a hypodermatic of one-fourth grain morphine at four o'clock, immediately after the eclamptic seizure passed. No urine had been voided in thirty-six hours; lochia arrested. A catheter relieved her of two quarts of urine; I also washed out uterus, which was distended with putrescent blood-clots and fragments of placenta; then gave one grain each of calomel and sodium bicarbonate every hour for five hours, followed four hours later by Epsom salts. I also gave three minims tincture aconite with camphor water every two hours. A vaginal douche of hot carbolized water was ordered every six hours.

July 6th her temperature was 100°, pulse 90; bowels and kidneys had acted freely; no convulsions since morphine was given. She continued to improve, and was up in ten days. I found no albumen in urine.

Case 4.—Mrs. M——, white, primipara, was confined at term, February 19th, 1893, and at 4 P.M. was delivered of a strong, healthy child. An hour later, as I was preparing to leave, she suddenly complained of intense headache, and almost instantly was seized with the most severe convulsion I have ever seen; so violent were the spasmodic movements that the floor of the room was shaken and furniture jarred.

As soon as possible after the convulsive movements subsided I gave her a hypodermatic of morphine and atropine; also chloroform by inhalation for fifteen minutes. The stertorous breathing ceased in less than an hour, and she slept until 10 P.M., when she awoke perfectly rational, though complaining some of headache. Fearing another convulsion I repeated the morphine and atropine and gave chloroform to partial anæsthesia. She now slept quietly until 5 A.M. the next day. Her temperature immediately after the convulsion was 102°.

Subsequent treatment was much the same as in other cases. She improved rapidly and was up in fifteen days after delivery. I did not test urine for albumen until after convulsions, when I found it present in large quantities. There was only a slight œdema of the lower extremities, none at all of the face and upper extremities. Albumen disappeared from urine in five days after birth of child.

Case 5.—Mrs. D——, white, pluripara, aged 35, was confined at term, April 3d, 1894, and after a short normal labor delivered of a strong, healthy child at 6 A.M. An hour later she was seized with a convulsion, and as I entered the room at 10 A.M. she was seized with the third.

As soon as the spasmodic movements subsided I gave morphine and atropine; also chloroform by inhalation for fifteen minutes. She then slept quietly until one o'clock, when she awoke perfectly conscious. At 7 P.M. she had a slight convulsion, but did not lose consciousness; morphine with atropine as before. She then slept quietly through the night and awoke the next morning with only a slight elevation of temperature.

The albumen in urine disappeared on fourth day after confinement, and she made a quick and perfect recovery.

Case 6.—Mrs. F——, white, pluripara, aged 34, weight 150 pounds, on December 11th, 1896 (about her expected time of confinement), at 1 A.M., complained of severe headache, and immediately afterwards was seized with a convulsion. She was having the fourth convulsion at 8 A.M. when I arrived; was comatose, and the stertorous breathing could be heard fifty yards from the house; morphine with atropine and chloroform by inhalation as before. Os slightly dilated, with the head of the child presenting. She slept quietly until 11 A.M., when she awoke in a semi-rational condition, and able to pass urine voluntarily. I delivered her of a living child at 3 P.M. She made a good recovery; there was at no time any albumen, and not the least elevation of temperature.

In the foregoing cases it will be observed no depleting remedies were employed except the bloodletting in one instance. Morphine was used in the first two cases only after veratrum and chloral failed. The prompt and positive effect of the morphine in arrest-

ing and controlling the convulsions in every case is remarkable.

The deductions which I derive from these cases are: That puerperal eclampsia is a disease the ætiology of which is yet *sub judice;* that it often develops after the uterus is emptied of the product of conception; that morphine is the most positive and prompt remedy which can be employed to arrest the eclamptic seizure,—in that it obtunds nervous sensibility and arrests muscular spasm, counteracts irritation of the nerve centers whether due to a toxæmia or of a reflex character; that veratrum is an unreliable remedy, and one fraught with danger; that chloroform and chloral hydrate are excellent adjuvants to morphine in arresting the spasms and maintaining the equilibrium of the nervous centers; that cerebral congestion is a result and not the cause of the convulsion,—hence I do not favor venesection; that a deal can be done in lessening the frequency if not the ratio of mortality in the disease, by timely and proper prophylactic treatment.

Goggansville, Georgia.

WATER-BORNE DISEASES.

BY J. NOER, M.D.

Asiatic cholera, typhoid fever, dysentery, and acute diarrhœal diseases are typical water-borne maladies, having their origin in sewer-polluted water or food-supply. Most of these have as their causative agent a specific contagious germ which finds a congenial habitat in putrescible matter such as sewage; and it is believed that some of the putrefactive bacteria may cause simple diarrhœa by their irritative action on the intestinal mucous membrane or by the production of ptomaines which may be absorbed or act as local irritants.

Sewage containing the infective germs or bacteria may pollute the water-supply and start an epidemic in a variety of ways.

It is universally admitted that cholera, typhoid fever, and dysentery never occur except through the action of a specific bacterium, which has a different biologic and morphologic characteristic in each disease. These bacteria are not, or at least are very rarely, transmitted by the air or clothing, but almost invariably directly or indirectly through the water-supply.

How do these tiny vegetable organisms get into our drinking water and from thence into milk or other food of which we partake and thus become victims of the disease?

River- and lake-water polluted by sewage from cities with water-carrying sewer systems, or which are polluted by overhanging privies or cesspools near their shores, is one of the most prolific sources of water-borne diseases. Well-water from the ordinary domestic well, where the top and the curbing are imperfectly protected from the surface overflow during a rain-storm or freshet, may be easily contaminated by disease-producing bacteria, which flourish in the barnyard, in the underground cesspool used as a receptacle for kitchen or other refuse, and in the privy vault near by.

It has been proven that freezing will check the development but not kill the bacillus of typhoid fever and of cholera. Ice taken from lakes or rivers contaminated by sewage may therefore convey these diseases to the consumers.

Rinsing or standing milk-cans in unboiled water contaminated by sewage will convey the putrefying bacteria or other germs existing in the sewage to the milk, which is an excellent culture medium for germs, and thus infect persons drinking it.

To illustrate this subject more specifically, presume a clear stream of running water, with a number of flourishing cities located on its banks. Let these cities be provided with water-carrying sewer systems, the sewage being, as is usual, conveyed into the river by means of underground pipes. The nature of the water in the stream will at once be changed; it will no longer be clear, but turbid and bad-smelling. If the sewage is very abundant the fish will perish and the living organisms of the water change character—there may not necessarily be disease-producing germs, but the water will be rendered more favorable for the culture of such. Now if a patient suffering with cholera or typhoid uses a water-closet in one of the water-sewered cities the river becomes contaminated and the disease may be spread *ad infinitum* by this means.

A practical illustration of water pollution

as the cause of disease is furnished by the scientific investigations of W. T. Sedgwick, biologist to the Massachusetts State Board of Health, into the cause of the epidemics of typhoid fever in 1890, 1891, 1892, and 1893 in Lowell, Lawrence, Newburyport, and other cities. After a long and laborious investigation it was found that the original point of infection was a privy overhanging Stony Brook, a tributary of the Merrimac river; it was ascertained that one or possibly two or three persons having typhoid fever had during their illness used the Stony Brook privy. From this point the infective material was conveyed down to the Merrimac river and thence to Lowell (a distance of about three miles); and other cities using the Merrimac river water for domestic purposes, and returning to the stream their sewage, were supplied with the ideal conditions for the propagation of typhoid fever and other diarrhœal diseases. The records show that the different cities were visited by the epidemic in regular order and sequence.

This epidemic along the Merrimac is of interest, in that it shows a small amount of infectious material in sewage, in very dilute solution, in an unfavorable season of the year (fall or winter), may infect directly or indirectly a very large number (about 1000 cases occurred in Lowell alone) of persons living many miles distant from the point of original pollution; it also evidences no river is long enough or large enough to purify itself.

How the domestic well may originate an epidemic, the infective material being distributed to the people through the milk-supply, is well illustrated by the outbreak of typhoid at Springfield, Mass., in August, 1892. It was discovered the disease was confined to a certain part of the city, supplied with milk by one individual; the original point of infection was traced to a milk farm from which this milkman obtained part of his milk, and upon this farm there had been several cases of typhoid just prior to the Springfield outbreak. It was supposed in this instance that the infective material was washed (from boots or hands soiled by fæcal matter) into the large, shallow domestic well by the overflow which ran back into the well during pumping.—The well was very large and covered only by loose planks. Into this well milk-cans were lowered and submerged to keep the milk cool. It was shown that the well-water would find its way into the cans. The water in the well was shown to be grossly contaminated by sewage.

Mere handling of milk-cans, as in rinsing them, by a person having typhoid fever may convey the disease to consumers of milk; many wide-spread epidemics have been shown to be caused in this way. The hands of persons afflicted with a diarrhœal disease, and who do not practise "aseptic technique" in washing, may therefore become the means of distributing the germs to water, milk, or other articles of food which may find their way into the stomach of a well person, and thus spread the disease.

In cities and villages where the ground is honeycombed with privy vaults and underground cesspools, wells are a very dangerous source of drinking-water. How far sewage or other poisonous organic matter may filter through the ground and yet remain active for the production of disease depends very much upon the nature of the soil, the drainage, etc. The well authenticated cases and the experiments at Lausanne, Switzerland, investigated by Högler, of Basle, show that water containing typhoid poison may not be purified by filtration through nearly one mile of solid earth (a filter fine enough to arrest particles of wheat flour), although it must be borne in mind that the filter in this instance was deeply buried, and that the certain absence of air and acrobic microbes rendered oxydation and purification of the water passing through it an impossibility.

That even very deep wells, though usually safer from sewer contamination than shallow ones, are not always safe from pollution by leaking cesspools is shown in the case of the Dudlow Lane investigation — Dudlow Lane being a suburban district of Liverpool. The well was down in new red sandstone to a depth of 443 feet, and the effect of continuous pumping was to dry the wells in the neighborhood, when these were in several cases used as cesspools by householders. The consequence was that the water in the Dudlow Lane well was gradually polluted, and in five years after it was sunk it had to be disused. Thus it appears that even the deepest wells

may be fouled by cesspools, and if by cesspools, equally so by leaking drains or sewers.

With regard to pollution of wells, it must be pointed out that such is almost always from underground sewers or cesspools, the contents of which have had no chance of aeration and purification: That such pollution is caused by leakage, *i.e.*, the direct irruption of water from cesspools, etc., into wells without filtration of any kind: And that water in sewers and cesspools, when it begins to leak, is under the pressure of superincumbent water, and hence the burrows which it gradually forms extend long distances.

Stoughton, Wisconsin.

NECESSITY OF NEW METHODS OF EARLY DIAGNOSIS IN TUBERCULAR DISEASE.*

BY J. B. RANSOM, M.D.

The most necessary thing to the intelligent treatment of tuberculosis is a means of early diagnosis. The difficulty of treating successfully this disease has arisen chiefly from the inability to make a positive diagnosis early enough in the process; hence the treatment has been so fruitless. It is my own belief that an early diagnosis of tubercular conditions, especially general, is seldom made; and one is often brought face to face with an advanced stage of the disease—very often, in fact, with those secondary conditions so difficult of relief or cure. Now, what is most needed is a harmless but sure test, either by way of serum reaction, such as is now being utilized in the diagnosis of typhoid fever (Widal's test), or the introduction of some element into the economy that will, by setting up reactive processes, as positively determine the presence of the tubercle bacilli as the use of tuberculin acts in detecting tubercular disease in cattle.† I firmly believe that when such a test can be used, it will be found that tubercle is at the bottom of many conditions now attributed to other causes. The early diagnosis will put the profession in a most favorable position for curative treatment, by both climatic and medical means. If the efforts of pathologists and bacteriologists were directed more towards the perfection of a diagnostic serum test, they would accomplish very much more in the direction of a cure for tuberculosis than by a search for a direct cure; once having determined the presence of the disease in its inception, its cure becomes comparatively a simple matter; when the general system is at a high point of vitality, when its resistance is large, when the tubercular infection is initiatory and feeble in its manifestation, many remedies which are now sometimes curative, and often retardative in the more advanced stages, I have no doubt would work a positive and permanent cure. I am satisfied that we know very little about tubercular infection, and of its early symptoms next to nothing, in fact—if there be any appreciable symptoms. My own experience in autopsies upon criminals, whom I have had the opportunity of observing almost daily prior to death, have simply astonished me, when I found the presence of tubercular deposits in cases where I had not the least suspicion, and where no symptoms were manifest of the same.

Especially do I believe this to be true of deposits in the glandular system; even in the lungs I believe it is perfectly impossible to detect the presence of tubercle by physical examination until the disease is considerably advanced, for here the microscope is absolutely useless, because no expectoration can be obtained. Early tuberculosis is diagnosed as almost any disease in the calendar, many of my cases of this character having been deemed catarrhal bronchitis, simple pleurisy, or simple indigestion. Here is a prolific field for study and experiment, and the energies of those of the profession interested in this particular work should be directed first towards a means of exact diagnosis, and secondly, to the cure.

In considering the treatment of tuberculosis the profession should disabuse itself of the idea it is an incurable disease. Tuberculosis is, I believe, a largely curable disease, and often self-limited. But it is a deeply rooted belief among the laity, as well as

*Read before the Medical Society of the State of New York.

† I am aware that tuberculin has been suggested as a test for human tuberculosis, but its use is not safe for that purpose; and also diagnosis by microscopic examination of the blood, which does not seem to promise much in a positive way.

among physicians, that tuberculosis is wholly incurable, and that it is costing many lives; consequently one feels he must be very cautious in making a diagnosis, unless the signs are so pronounced he cannot go astray, which latter, of course, implies an advanced stage of the disease. If a physician makes a diagnosis of tuberculosis and the patient recovers, he knows very well that it will be said he made a mistake. The view that tubercular disease is incurable also leads to the neglect of many measures which, if properly adjusted to the needs of the individual patient, would often result in amelioration or cure. In meeting so formidable a disease one must have confidence in his ability to cope with it, and no half-hearted, dilatory treatment will ever suffice to head off so tenacious a process. To be sure the public are becoming enlightened, and the profession is taking a more hopeful view of the curability of this disease, but there is still much room for the exercise of more confidence in treatment of the malady. Now that it is known that most infectious diseases are dependent upon the presence of a special microorganism, why should the mere fact of the presence of the tubercle bacillus imply certain death? There is no reason, only that which has grown out of ignorance of the true nature of the malady. While admitting its gravity and the difficulty of its dislodgment, it is not necessary to admit it is necessarily a fatality. Doubtless many thousands have paid the penalty of fright on their part and the part of the physician. Every day of these modern times adds to our knowledge of some feature of tubercular manifestation which we did not know before, and yet from which the patient has often recovered, as revealed on the autopsy table. Any one who has had extensive experience with this disease knows that he has repeatedly seen cases of acute tuberculosis get well.*

A boy aged fourteen was taken violently ill during the winter of 1894 with what seemed to be typhoid fever. I was soon able, however, to diagnose acute tuberculosis, with involvement of lungs, peritoneum, and intestinal glands; temperature very high; pulse rapid; expectoration of bloody purulent sputa swarming with bacilli. For nine weeks this fever raged; he became very much emaciated, and all hope of recovery was given up. At the end of three months, however, he was a great deal better, and after two years examination revealed him to be perfectly healthy, rugged, and vigorous, with no evidence of pulmonary disease whatever. This was positively one of the most intense cases of tuberculosis I have ever seen, and there seemed no possibility of recovery; there was no doubt as to the diagnosis, for the microscope settled that conclusively. I have seen several cases somewhat similar to this recover from primary attacks of tuberculosis; and I think if one will carefully go into the history of cases it will be found that many primary attacks are recovered from, and where the patient has died a clear history of reinfection will be obtained. Could one know of the many cases of tuberculosis which have been diagnosed as some other form of disease that have recovered, the belief in its curability would be greatly strengthened. Believe, then, that a large percentage of tubercular patients can be cured and then it will be possible to show results. It should not be expected an advanced case can be cured, where the lungs are riddled with cavities, the lymphatic and glandular systems partially occluded, the heart weakened, the digestive and assimilative powers of the system so abbreviated that nutrition cannot be carried on, any more than can be expected that all cases of typhoid fever should recover, after perforation has taken place.

In speaking of the treatment I divide into climatic, nutritive, and medical.

Climatic treatment may be subdivided into *location* and *environment*. Of all the known treatment for the amelioration or cure of tubercular processes climatic stands first, but there can be no hard and fast rule as to its application in any given case; generally speaking the prime requisites are proper altitude, equableness, dry pure air, with natural timberage of resinous woods, to which should be added sufficient air currents coming over large tracts of unpopulated land (preferably

*Blache in his recent report claims that in the outdoor treatment of consumptive children at Ormisson, France, 47.71 per cent. are cured, and the percentage of deaths only 3.44. He further states consumption is more easily cured than many other diseases—in fact, is eminently a curable disease.

forest lands of balsam, spruce, pine, and hemlock), and of sufficient velocity to sweep away all local impurities arising from low grounds, and also all bacteria from the atmosphere. There is too much tendency to fear winds, when this is really the most important factor in the dryness and purification of the atmosphere. Just what effects climate alone has upon the bacillus of tuberculosis has not received enough attention from the profession, and so far as I know very few, if any, experiments have been made in this direction. Last summer I began in a crude way the experiment of exposing for several days glass slides smeared with the film of tubercular sputum, preserving check slides of the same sputum with which to compare the results; but for want of an efficient bacteriologist the experiments were not carried to an extent warranting expression of an opinion.

One thing I have determined, however, by ordinary examination of the sputa of patients brought from the low countries to the Dannemora climate, and that is, the bacilli after a short residence here become attenuated, much less in number, and often entirely disappear. In comparing a slide of bacilli mounted from sputum received from New York and those of the sputa of patients residing in and about Dannemora, the difference in the size of the bacilli was very marked; the specimens from New York were very much larger than those from Dannemora; this difference I attributed to the unfavorable conditions for the growth of the bacilli in the Dannemora climate. Here also is a wide field for bacteriologists, and when it shall have been more correctly determined just what the effects of different climates have upon the growth and life of the bacillus, then it will be possible to determine the best climate calculated to cure a patient.

Generally speaking, the object of climatic treatment is: To produce an effect upon the nervous system through the agency of change, — a very important factor in the treatment of tubercular disease, as the mind needs to be taken from the person himself and his ailment, and a suggestive substitution of other subjects calculated to fill his thoughts and occupy his attention pleasantly. For this reason the grouping of large numbers of tuberculous patients is not desirable, because the mind is constantly brought to recognize the ravages of the disease and to permit an inward self-consciousness, which is decidedly injurious to the patient: Second, to furnish ample opportunity for safe outdoor living.

Not only should climate afford pure air and pure water, but also opportunity for the location of dwellings on dry ground with sunny exposures, for the latter is absolutely essential to the cure of tubercular processes. House dampness is one of the greatest promoters of tubercular infection, and I have repeatedly noticed in old houses built on rather low ground, with sills practically level with the earth line, that the inmates often suffer from tubercular disease, and had for generations. Darkness and damp are ready servitors of this malady, while dryness and sunshine are its inveterate foes.

Not only should climate tend to promote cure, but it should most decidedly be adjusted to the patient's needs to prevent the probability of reinfection, which is the essential factor in making possible a permanent cure. As before intimated, the initial attack of tuberculosis is often cured, and often seems self-limited; it, however, does not depart without leaving the results of its former presence in the economy, and diseased areas left behind afford rich foci for reinfection. The grouping therefore of large numbers of tubercular patients in the wards of sanitariums and hospitals is opposed to every principle of good treatment. Tuberculous patients should live in small, sunshiny cottages, distinctly isolated from all other buildings, with plenty of air space between them, exposed to the sun, and no shade trees within a goodly distance, and so constructed as to permit of absolute cleansing. With these conditions secured, climate is a wonderful factor in accomplishing a cure, and if the patient could be kept in the proper atmosphere his life would be practically assured— so far as this disease is concerned. It is, however, when a recovered patient is sent to his former environment that within a short time he is reinfected or autoinfected, and the former process is gone through with, perhaps again and again, until constitutional resistance is destroyed and he succumbs. The tuberculous patient should never return

to the environment in which he acquired the disease; this should be a fixed rule in medical practise in the advisement of patients.

Next in importance to the climatic is the nutritive treatment. This may be confidently divided into dietetic and mechanical. While I do not believe with some modern writers on this subject that diet is so large a factor in prevention and treatment, all observers must recognize its absolute importance, especially in preventing a reinfection. In a battle with such a disease every means must be brought to bear which has a tendency to fortify the general system against it, and raise the standard of vitality and resistance. There is, however, I believe, a something in connection with the infection of tubercular disease which is not understood, and this is the predisposition to infection, which is termed the hereditary vice of constitution or tendency. My observations have not led me to believe that it is always those of low vitality who become infected, or that infection always takes place at the lowest point of bodily nutrition, for I have repeatedly seen cases where the subject has become infected when apparently in the best of health, and the bodily nutrition at the highest point; there is, I believe, some general serum condition of the economy, or some localized condition which invites infection, which acts as a culture broth to the bacilli. Infection by the bacilli cannot be explained through a lowered vitality alone; therefore I cannot endorse the statement I have so repeatedly seen made, that the prevention of tuberculosis depends so entirely upon dietetic measures. Here, again, is another field for the pathologist, to seek to determine what the precise systemic condition is at the time of infection. This, like a test for the presence of the disease itself, can only be determined through a series of serum or tissue tests. The diet in the pre-tubercular and tubercular states should be of mixed character, and adapted to the individual requirement without reference to kind or quantity; should be that which furnishes the greatest amount of nutrition, with the least effort on the part of the digestive organs. As a rule, proteids should predominate, but there is also danger of development of ptomaines, from too prolonged feeding of animal food. The digestive and assimilative functions should be carefully looked after and nutrition kept at the highest point possible, which often requires frequent and forced feeding and absolute rest in bed for a time. There is, however, great danger in overfeeding, by the throwing too much work on the excretory and lymphatic systems, — always a grave mistake in the treatment of a disintegrative disease.

The mechanical aspect of nutritive treatment consists in proper exercise of all the muscles of the body, proper care of the skin, and especially in the development of the chest muscles and of lung capacity by breathing exercise through tubes and while in action; all local congestion should be prevented as much as possible, and the circulation kept in equable condition at all times. All sorts of open air exercise, such as horseback riding, cycling, hill-climbing, hunting, and fishing should be encouraged within limits, for violent exercise and overdoing of any sort must be strictly prohibited. With the tuberculous patient all changes should be made as gradual as possible, and abrupt innovations as to habit, feeding, etc., are never advisable.

The last feature of treatment is that by medication, and I purposely pass over most of the remedies which have been heralded. Medical treatment may very properly be divided into local and general. The former, aside from surgical, consists in the employment of inhalations and sprays, and counter-irritants. All of these means are extremely useful in their places, and when exhibited in proper cases have repeatedly seen most beneficial results. Every practitioner is familiar with the benefits that can be obtained and the amelioration that can be afforded to local pain and infiltrations by the use of local stimulation.

In speaking of general treatment I shall make no reference to serum injections, having had no practical experience therein, but confine myself to the mention of a few of the more prominent remedies. First, good Norwegian cod-liver oil, which occupies a place midway between the nutritive and the medicament, for I believe it possesses both properties in a marked degree. In this medicament, when properly administered, is had a potent factor in the relief and cure of

tubercular processes; of this I am thoroughly convinced from close study and observation of many hundred cases. My method of administering is in connection with the syrup of hypophosphites, U. S. P., in the proportion of about one to six; no attempt is made at emulsion, but the patient is instructed to simply shake the mixture, and take it from sixty to ninety minutes after meals. In this way I prescribe from five to ten gallons per month, and I have seen but few cases where it seemed to be ill borne or to in any way interfere with digestion. Its effects have been universally good, and there is usually marked improvement in the condition of the tuberculous patient. If the oil is given in an acid menstruum, while the food is passing out of the stomach, so that the oil can be quickly reached by the pancreatic secretion, there will be found little difficulty in its assimilation. Of course there are cases where cod-liver oil cannot be taken in any form, but my observations lead me to believe that such are rare. As a heat-producer and tissue-builder, nothing has yet been found equal to cod-liver oil. Creosote in my hands has also been of great service, and I have repeatedly seen apparently hopeless cases of tubercular disease, especially pulmonary tuberculosis, appear to recover under its use. I give this medicament in two ways: either in glycerin or whiskey, or in a mixture containing glycerin, cinchona, gentian, and alcohol,—I seldom give in capsules, or in any concentrated form. I also begin with small doses, gradually increased—for I have never seen good results follow the administration of large doses, on the contrary have seen many ill results—for a long time, and the result has been generally good. Some cases I have found could never take creosote with benefit at all, and to some it seems to be rank poison. One hears on all sides the assertion that creosote is a failure in the treatment of tubercular disease; but this I do not believe to be true, and feel that the authors of such statements have not had the opportunity for close daily observation or absolute control of patients.

Guaiacol I have also found useful, but my experience therewith has been much less than with creosote. There are many other useful remedies, such as strychnia, alcohol, hypophosphites, quinine, etc., etc., and many incidental means by which patients can be made comfortable, and at the same time are helpful in promoting cure; but I must advise against the indiscriminate use of opiates and cough mixtures, which are as a rule injurious.

I will here speak of the great injury done to pulmonary tissues by frequent coughing, which I have found is largely a habit. The patients in my tubercular wards seldom cough after having been admitted a few days. One of the first things I instruct them in is to clear the bronchii without coughing; I tell them, when they feel the impulse of cough, to resist and think of something else, allowing the secretions to accumulate in sufficient quantity to be raised by an expulsive use of the thoracic muscle; it is seldom, indeed, that my wards are disturbed by coughing, and it is astonishing to see how easily the patients learn to repress. The beneficent results of avoiding this strain to the pulmonary tissues and exhaustion of the strength of the patient must be apparent.

Dannemora, New York.

OVERSTUDY IN YOUNG GIRLS.

The well known strictures repeatedly made by Skene against the injurious effects of overstudy upon young girls should be treasured by every practitioner. Much the same may be said against an artificial social life, such as prevails in many of our larger cities. It must not be forgotten that a girl does not become a woman promptly upon the first appearance of her menses, but that for some time thereafter, usually several years, she is in a transitional state, and that the less Nature is hampered in the proper molding of the individual the better for that individual. A girl naturally below par, especially if descended from defective parents, or if she has a highly sensitive nervous organization, not only has all she can attend to to adjust herself gradually to the strains of maturing womanhood, but she is likely, despite Nature's best efforts in her behalf, to require extraneous aid. This it is the physician's duty to give, and it is folly to render aid on the one hand whilst continued overwork is permitted to more than cancel this upon the other.—*Medical Council.*

THE MEDICAL AGE.

A SEMI-MONTHLY REVIEW OF MEDICINE.

—PUBLISHED BY—

GEO. S. DAVIS, Medical Publisher, Box 470.

All communications regarding papers, reports, etc., should be addressed to the Editor of the MEDICAL AGE, P. O. Box 470, Detroit, Mich.

Matters relating to advertising space, etc., to be addressed to the publisher, Geo. S. Davis, Box 470, Detroit, Mich.

The editor cannot engage to return rejected manuscripts or to correspond with the writers thereof, unless such are accompanied by sufficient postage.

DETROIT, MICH., AUGUST 10th, 1897.

Editorial.

THE BRITISH MEDICAL ASSOCIATION.*

The great medical event of the year at Montreal, viz., the joint session of the Canadian Medical Association and the British Medical Association, is now close at hand, and it behooves all who may not have decided to be present at the meeting to speedily make up their minds, and if the visit is contemplated, to at once inform the Committee at Montreal of the fact, as they are very anxious to know approximately how many they will have to entertain. It is urgently requested all who intend going at once inform the local Secretary, Doctor J. A. Springle, 2204 St. Catherine street. The probable attendance of medical men is estimated at the present time to be about one thousand: two hundred and fifty from England, fifty from other colonies, three hundred from the United States, and four hundred Canadians.

Several eminent men who cannot be present at the meeting have promised to send demonstration specimens. The English secretaries are generally working in this direction.

Among the interesting discussions which are being arranged for is one on syphilis, between the dermatological and pharmacological sections, introduced by Doctor Whitla, of Belfast, Ireland, members of other sections being of course invited to attend.

One of the most interesting and pleasant of the numerous excursions will be the one arranged for to Ottawa, as guests of that city.

Rev. Doctor Norton has kindly offered the Association the English Cathedral for a special service, and Doctor Adami has arranged with Bishop Dumoulin to officiate.

Some six hundred invitations have been sent out to American physicians and replies have been received from two hundred and twenty-one. Among those who have intimated their intention of attending the meeting are: John Ashhurst, Jr., L. D. Bulkley, W. T. Bull, H. T. Byford, H. P. Bowditch, J. Solis Cohen, T. M. Cheeseman, D. W. Cheever, W. B. Coley, J. McKeen Cattell, Fred S. Dennis, D. B. Delavan, Reginald Fitz, Geo. H. Fox, Frank P. Foster, Christian Fenger, Virgil Gibney, H. G. Garrigues, E. H. Grandin, Landon Carter Gray, James Nevin Hyde, B. C. Hirst, A. Jacobi, Howard A. Kelly, John H. Musser, W. F. Mittendorf, Hunter McGuire, Thos. G. Morton, H. H. Mudd, J. B. Murphy, Paul F. Munde, W. P. Northrup, Wm. Pepper, Fred C. Shattuck, Louis Starr, W. Allen Starr, E. C. Spitzka, Geo. F. Shrady, James Tyson, Wm. H. Welch, and Casey Wood.

The list of English members coming has already appeared in the *British Medical Journal*, but it will be of interest to know that the Association will have the privilege of listening to such men as Richet, of Paris; Professor Charles B. Ball, William Mitchell Banks, Henry Barnes, Professor R. Boyce, Watson Cheyne, Sidney Coupland, J. Ward Cousins, J. H. Crocker, Professor E. M. Crookshank, Christopher Heath, Arthur Kelsey, D. J. Leech, Right Honorable Lord Lister, Harvey Littlejohn, Donald MacAlister, Stephen Mackenzie, Thomas M. Madden, Malcolm Morris, E. Nettleship, Robert Saundby, W. J. Sinclair, Professor W. Whitla.

Replies have been received from twelve of the branches of the British Medical Association accepting the invitations tendered requesting them to send delegates.

The Museum Committee report that all their space has been taken up, and they probably will have to secure another building besides the large Victoria Skating Rink. This department will prove one of the most interesting features of the meeting. A rare opportunity will be afforded to see pharmaceutical preparations, surgical and medical appliances, and everything that interests the physician, from the leading firms

*Abstracted and condensed from *Montreal Medical Journal.*

of America and Canada, as well as from across the Atlantic. Among the leading surgical instrument manufacturers will be Collin of Paris, and Down Brothers of London, the latter making a special exhibit of antiseptic hospital furniture, which will be worthy of inspection. There will be also a great variety of exhibits from leading firms in Vienna, Berlin, Edinburgh, London, Paris, and New York.

The local Entertainment Committee are being assisted by a committee of ladies, consisting of the wives of the members of the profession in Montreal, and others. Among the entertainments provided for are numerous afternoon teas and garden parties. The Ladies' Committee will specially interest themselves in looking after lady visitors; ample provision has been made for continuously entertaining.

The annual Association dinner will be held at the Windsor Hotel, the fee therefor being five dollars, wines included.

The Excursion Committee have arranged a varied and attractive programme; among other excursions is one on Lake Memphremagog to Newport and Magog, which will carry the guests through one of the most fertile portions of the Province of Quebec.

A trip is also proposed to Shawenagan Falls (said to almost rival Niagara) on the St. Maurice River.

Among local trips on different afternoons are a ride around the Mountain on the electric cars and through some of the more interesting parts of the city; a trip to the top of Mount Royal, where a luncheon will be served by the Mayor and Corporation of Montreal; a steamboat trip down the St. Lawrence; another to Ste. Anne and down the Lachine Rapids.

It can be gained from the foregoing that those going to the British Medical Association meeting will not only be benefited from an educational point of view by coming in contact with the leading members of the profession from Great Britain, Ireland, the United States and Canada, and taking in the various discussions and papers, which may be expected to represent the most recent advances, but they will also be fully repaid by a varied and full round of social entertainments and pleasure trips, such as has not been privileged to the members of any previous meeting.

THE OPIUM HABIT.*

Whether or not the recent British Royal Commission appointed to report upon the opium traffic in India has satisfied any one, it has at least supplied the public with information which is interesting even if disproportionate to the time and labor involved in collecting it.

This report informs us that the three chief kinds of opium, with their percentage of morphine and anarcotine, are as follows:

Patna opium, 3.98 morphine, 6.36 anarcotine.
Malwa, 4.61 morphine, 5.14 anarcotine.
Smyrna, 8.27 morphine, 1.94 anarcotine.

The opium which is chiefly employed in medicine is the last named, while that from which almost all the drinking and smoking extracts employed in India are taken is the Patna opium; in other words, the commercial opium of medicine contains at least twice as much morphine as ordinary Indian opium.

In China, where opium is habitually smoked, morphine is not the element for the sake of which the drug is taken, and the Indian drug which has the lowest percentage of morphine is that most highly prized. It is stated that a Chinese expert smoker of nine years' standing, to whom various samples were submitted, without any remark pronounced emphatically against those which contained twenty to twenty-five per cent. of morphine in favor of those containing the lowest percentage; consequently one draws the natural deduction that De Quincey and his imitators are not to be entirely relied on as respects this drug.

Another fact which seems not to be generally known to medical men is that anarcotine has been largely used in India since 1857 to replace quinine in the treatment of malarial fevers; it is a distinct antiperiodic; and the characteristic of Indian opium is the preponderance of this alkaloid.

Now comes the question whether Indian opium is a prophylactic against malarial fever: To a certain extent, statistics show that those who take daily forty-five grains

*The Editor desires to make acknowledgment to *Chambers' Journal* for a digest of the report of the British Opium Commission.

and upwards receive enough anarcotine to insure absolute prophylaxis as regards malaria; also that any one taking over sixteen grains will be more or less protected—doubtless the morphine alkaloid likewise contributes a share in prophylaxis.

Another thing the Commission shows is that in many districts in India opium consumption bears a close relation to the prevalence of malaria. In Assam, for example, in the damp and low-lying country on both banks of the Brahmaputra, the average annual consumption per head is three hundred and fifty-seven grains, and the average for the whole province one hundred and forty-one grains, while in the Bhagalpur district of the Patna division the most malarious part has forty-two per cent. of the opium shops of the district for only twenty-seven per cent. of population. One of the medical witnesses gave the following lively description of the conditions of life in Eastern Bengal:

> When a man wants to build a house he first of all digs a tank, and with the earth from which he has dug the tank he raises a mound, and on the top of that mound he places his house. The elevation of that mound depends entirely upon the height to which the annual floods rise. The floods rise with fair regularity, but sometimes they go two or three inches higher than the average, and then the inhabitants of those houses have to live on rafts inside their houses, and their cattle are tethered up to their bellies in water. These people have generally no boats. They paddle about on rafts made of the plantain-tree, and the boys go to school in what I call wash-hand basins. They are earthen *gumlas*—earthenware pots. The boy squats at the bottom of the gumla, and paddles to school. These poor people are often five miles from their nearest neighbor, and some two millions of them are dependent for qualified medical aid on a single European doctor with one assistant. What wonder that opium is their household remedy, and that when a man, disabled by malarial fever, finds that a dose of a quarter or half a grain of pure opium makes him a new man, and enables him to do the day's work without which his family would starve, he takes it.

One of the commonest uses of opium in India, that which perhaps most strongly offends sentiment, is its administration to infants and very young children. The evidence evinces between sixty and ninety per cent. of infants are dosed with it. Says Sir W. Roberts:

> The practise is begun in the first few weeks or months of life, sometimes even from birth, and is continued up to the end of the second or third year. The dose is usually one-sixteenth to one-twelfth of a grain to begin with, and this is gradually increased to a quarter or half a grain, and even to one or two grains, according to the age and necessities of the child. Sometimes it is given in the form of a pill, sometimes a sucking mother smears it on her nipple. It is given partly as a remedy for the ailments of infancy, partly to keep the child quiet.

One witness gives quite a Theocritean picture of peasant life:

> A peasant woman who has to work in the fields gives her child some opium, and puts him in a basket in the corner of the hut, or, perhaps, she takes her child with her to the field, and puts him in a small basket and gives him a little opium to keep him quiet. Fatalities and cases of poisoning rarely occur, and it should be carefully borne in mind that this practise is discontinued usually at the third year, and certainly at the fifth, and has no connection with the habit which may or may not be formed when the child is grown up.

Opium is not only used as a medicine, but has likewise its place in the usages of society, and it is against this that the anti-opium movement is chiefly directed. It is unnecessary to discuss this phase, but a few facts may be of interest:

We have already said that in China opium is habitually smoked, while in India it is usually drunk, and the habit of smoking is, even with those who drink it, in India regarded as both disreputable and demoralizing. Its use in connection with ceremonials is most common in the Native States, and especially among the Rajputs and allied castes. It is there an invariable feature of all the greatest occasions of life—betrothals, weddings, birth of male child, shaving of a male child's head, during the first twelve days of mourning, at reconciliations, etc. At the betrothal ceremony it takes the place of the wedding cake; is provided by the bride's family, is consumed first by the bridegroom, and then by the whole company, who drink it from the palm of the hand of the host. No reconciliation is in any way possible without it, for if either of the two parties should decline to partake of the opium, it is immediately understood that the delinquent is not disposed to abide by his promises. "In some castes letters are begun with a prayer, asking the addressee to take, on the

writer's account, double the quantity of his daily allowance. . . . When a respectable old man dies the use of opium in honor of his memory is indispensable." During the first twelve days after death, when the people from the surrounding villages come in crowds to offer condolence, *kasumbha** is required to be supplied for all, even to the servants. Afterwards, on the thirtieth day, a great entertainment is given, and the host's credit is proportionate to the amount of the drug he distributes. Of its use on such occasions the Maharaja of Durbhanga, in his note to the Commission, very judiciously declares that an attempt to stop it "would be not only an unnecessary restriction on the freedom of the subject, but might lead also to the increased consumption of alcohol." This fear was expressed by a great number of witnesses.

Few points are brought to light by the Commission more remarkable than the conflict of opinion which exists as to the relative injuriousness of opium smoking and drinking when carried to excess. Sir W. Roberts declares "it cannot be taken to have been adequately proved that moderate opium smoking taken by itself, and apart from its surroundings, and from disease or semi-starvation, has any prejudicial effect on health." Yet opium smoking was strongly denounced before the Commission by Indian witnesses of all classes, many of whom were not opposed to the use of crude opium in the form of pills as a stimulant or restorative. The opinion of medical and other officers in the farther East was almost unanimously in favor of smoking. "I always consider that one drachm swallowed will require the same treatment as three drachms smoked," declared an English physician of twenty years' experience at Chefoo. It seems to be universally admitted, however, that smoking is the more seductive habit, which doubtless accounts for its prevalence among the Chinese. Says the British Consul at Chefoo:

> I firmly believe that the abuse of opium smoking is an effect of evil, not a cause; a punishment, not a vice; also that remedies for the evils of opium smoking to excess will be found not by restricting or forbidding opium trade, but by promoting among the Chinese a healthier state of things—material, mental, and moral—thereby dissipating those feelings of *ennui* and discontent which produce the desire for the delights of opium.

It is highly apparent that a great deal has yet to be learned regarding the non-medical use of opium.

* A decoction of opium.

EDITORIAL NOTES.

Editor of the Indian Medical Record.—

We are glad to observe that Doctor Wallace, the well known editor of the *Indian Medical Record*, has just passed the exceedingly severe examination which gains him a Fellowship in the Royal College of Surgeons, Ireland. There is perhaps no medical examination the world over so thoroughly strict, impartial, and complete as this, and the very fact of having passed successfully is the greatest honor that can be attained by any member of the medical profession.

Alcohol and Carbolic Acid.—

Some weeks ago we had occasion to note in THE MEDICAL AGE the statement that alcohol antidoted the burns produced on the flesh by carbolic acid. In the *Medical Times* appears a statement to the effect that alcohol has been successfully employed internally for the relief of carbolic acid poisoning in an attempted suicide.

Further information on this point is manifestly desirable.

New Orleans Medical and Surgical Journal.—

We note with the July issue of this journal that it has completed its half-century. We tender our congratulations, for it has long been known as one of the best medical periodicals in America.

A Prolific Royal Family.—

With the advent of a daughter to the Duke and Duchess of York, the number of grandchildren and great-grandchildren of Queen Victoria is now an even thirty.

Pharyngitis.—

A mild gargle, such as solution of borax flavored with extract of liquorice, will generally be found more beneficial than one of greater astringent character.

Items and News.

Elephant Poisoning by Prussic Acid.—

An interesting experiment in toxicology on a large scale was carried out recently near Liverpool. It appears that a "rogue" elephant escaped from the city in question, and was captured some miles away at a village, where it was decided to put the animal to death. The first attempt was made with aconitine, with which powerful alkaloid a carrot was stuffed and administered to the poor beast. As a matter of fact, however, the drug appeared to have no effect whatever, and after a prolonged wait it was resolved to try prussic acid. A large brass syringe was filled with the poison and emptied into the mouth of the sagacious creature, but he immediately washed it out with a draught of water. On a second and third attempt most of the poison was swallowed, and three hours later the animal fell over on its side, dead. Considering the usually instantaneous effect of hydrocyanic acid this delayed action is not a little remarkable, and may possibly be explained by slow absorption. It seems hardly likely that the nerve centers of the elephant could be so peculiarly constituted as to resist the poison.—*Medical Press and Circular.*

Secret Remedies for Inebriety.—

During 1896 twenty-two so-called Keeley gold-cures suspended and dissolved; twenty-seven gold-cure homes, where specific treatment for alcohol and opium was given, went out of business. Five new companies meantime were formed to sell rights to use secret inebriate cures. Three ex-superintendents of gold-cure establishments committed suicide.

To this may be added that in three years we have made notes of the relapse of nineteen physicians who have been medical directors of gold-cure establishments. Ten of these persons came for treatment in regular asylums, where no specifics were used.—*The Lancet* (London).

The Trained Nurse.—

The advantages accruing to the modern trained nurse from a familiarity with technical medical terms are shown by the recent remark of a nurse in attendance upon a man suffering from vesical retention. The patient had for some days been obliged to make several futile attempts in each case before accomplishing the function of micturition. Finally relief came, and the nurse saluted the doctor at his morning visit with the cheerful words: "He passed water today *by the first intention.*"—*Boston Medical and Surgical Journal.*

A Wealthy Porcine.—

Two banknotes of twenty pounds each, enclosed in a metal sheath, were recently found in the stomach of a pig which was slaughtered immediately after it had been bought at a fair. The banknotes were in a perfectly clean condition, and the metal sheath was but very slightly oxydized by the gastric juice of the animal's stomach.—*Bristol Medical Journal.*

How They Do It.—

A rich woman feared she had Bright's disease. She was willing to take the free dispensary drugs, but not to trust to the diagnosis of dispensary doctors. So she applied for a large amount of life insurance, was duly examined, pronounced sound, and accepted. She replied she had changed her mind. Thus she beat the doctor.—*Medical Record.*

Why Doctors are Skeptics.—

If you go to church you see a dear sister who gets shouting happy at each protracted meeting. You know her last abortion was produced with a crochet hook! You know you presented your bill; she did not pay it. She doesn't like you now. She employs another doctor—and shouts louder than ever!—AMES, in *Kansas City Medical Index.*

Toxic Symptoms.—

Experience has shown that toxic symptoms may arise from the incautious use of many drugs, etc. That is why adverse reports should be as critically received as favorable reports on new remedies. The latter are no more prompted by optimistic enthusiasm than the former by pessimistic prejudice.—TIRARD, in *Summary of Therapeutics.*

The Drug Habit.—

One of the most pernicious practises is the habit of medicine-taking. Many people are addicted to the habit of swallowing a drug of some sort for the relief of every physical discomfort which they may happen to experience, without any attempt to remove the cause of the disorder by correcting faulty habits of life.—*Medical Times.*

Green Urine.—

Salicylic acid in large doses may cause this.—*Medical Times.*

Book Reviews.

System of Diseases of the Eye. Edited by William F. Norris, A.M., M.D., and Charles A. Oliver, A.M., M.D. Volume II; cloth; 8vo; pp. 556. Price, $5.00. The J. B. Lippincott Co., Philadelphia.

This, the second volume of the series, well upholds the reputation won by its predecessor.

Herman Snellen writes on "The Methods of Determining the Acuity of Vision," and also on "Mydriatics and Myotics;" L. Laqueur on "Lateral Illumination;" George M. Gould on "The Ophthalmoscope and the Art of Ophthalmoscopy;" Edward Jackson on "Skyoscopy" (the shadow-test); "Rhinoscopy and its Practical Application;" Adolphe Javal, Jr., on "Ophthalmometry and its Clinical Applications;" William S. Dennett on "Prisms and Prismometry;" George T. Stevens on "The Principles of and Methods for the Estimation of the Balance for Extra-ocular Measures;" Herman Wilbrand on "Perimetry and its Clinical Value;" William Thompson and Carl Weiland on "Detection of Color Blindness;" Samuel B. Risley on "School Hygiene;" I. Minis Hayes on "Blindness, its Frequency, Causes, and Prevention;" Joseph A. Andrews on "Antisepsis;" Joseph McFarland and Samuel Stryker Kneass on the "Microorganism of the Conjunctiva and Lachrymal Sac." It will be noted that two of the most important papers are by the most celebrated ophthalmologists in Holland; one by a well known ophthalmologist of Strasburg, Germany; one by one of the most expert of French authors and practitioners—Javal, of Paris; also an expert oculist of Hamburg, Germany. The others are American, as indeed are the translators, with the exception of Doctor George Berry of Edinburgh, Scotland, who undertook a translation of Snellen's manuscripts. This is by long odds the best and most complete work on ophthalmology that has yet been undertaken.

The American System of Practical Medicine. Edited by Alfred L. Loomis, M.D., and William Gilman Thompson, M.D. Volume II. Cloth; 8vo; pp. 941. Price, $5 00. Lea Brothers & Co., Philadelphia and New York.

The second volume of this work follows the first after an interval brief enough to satisfy the large number of readers who are awaiting each issue with expectancy. It considers the diseases of the respiratory and circulatory systems, of the mediastinum, of the blood, of the kidneys, of the bladder and the prostate gland, and is amply illustrated with engravings and plates. In adherence to the design of the work, the practical aspects of medicine have received complete consideration in conformity with the most advanced and accepted views. The editors have received the willing assistance of the leaders of American medicine, and have therefore been able to assign each subject to an acknowledged authority. The volume is particularly full in the details of treatment, directions being given with such explicitness that the physician will have no difficulty in selecting from the abundant prescriptions and formulæ those most applicable to the special features of the case before him. The work is, in a word, a complete and authoritative statement of the practical part of medicine as it stands to-day.

Reference Book of Clinical Therapeutics. By various authors. Edited by Frank P. Foster, M.D. Volume II. Cloth; 8vo; pp. 618. D. Appleton & Co., New York.

The second and completing volume of this work is before us and it deals with all subjects from napalline to zymoidin. We note among the contributors the names of Samuel T. Armstrong, S. M. Brickner, Edward B. Bronson, William B. Coley, Floyd M. Crandall, Jeremiah T. Eskridge, Matthias L. Foster, Arpad G. Gerster, Henry A. Griffin, Charles Jewett, Howard Lillienthal, Russell H. Nevins, Austin O'Maley, George O. Peabody, Frederick Peterson, Samuel O. L. Potter, Charles Rice, Solomon Solis-Cohen, and Joseph Whittaker.

It is practically impossible to review a work of this class properly; but it must be said these two volumes constitute a very important contribution to practical therapeutics. Moreover it is supplemented by most complete indices. There is likewise an addenda of forty-eight pages.

A Man's Privilege. By Dora Russell. Paper; 16mo; pp. 288. Price, 25 cents. Rand, McNally & Co., Chicago and New York.

This is No. 257 of the Globe Library, and runs through a tale of love, crime, and of marrying and of giving in marriage, with money as the chief consideration. A little on the wishy-washy order, the book has enough of good material to be interesting; the plot is certainly good, and the treatment in the main is excellent. There is an undercurrent of ignorance regarding certain situations which go to show that very careful study of scenes is as essential in novel writing as in painting. After all what is a novel but a word picture?—a fact too often forgotten by authors.

Danesbury House. By Mrs. Henry Wood. Paper; 12mo; pp. 294. Price, 25 cents. Rand, McNally & Co., Chicago and New York.

This, a well known classical bit of fiction, emanates from one of the ablest women authors of Great Britain, and this work is contemporary with East Lynne. No one can lay out the plan of a story better than Mrs. Wood, and not even Wilkie Collins, to whom construction is the Alpha and Omega of his craft, is superior in the cleverness with which puzzles are devised and the parts fitted together. To attempt to review the tale itself would be to spoil it for the reader. It is one of the most fascinating of nineteenth-century novels.

THE KING OF THE MOUNTAINS. By Edmond About. Cloth; 12mo; pp. 246. Price, $1.00. Rand, McNally & Co., Chicago and New York.

This bit of fiction by one of the best known French authors deals with brigandage and the peculiar conditions of Grecian life. It is a very exciting tale, and is exceedingly *apropos* just at this period when so much interest is centered in the Hellenic Peninsula. It purports to be a life picture in the matter of Greek outlawry, and certainly the text appears to bear out the claim. It is rarely our fortune to encounter a bit of fiction so thoroughly interesting and readable as this.

EYE STRAIN IN HEALTH AND DISEASE. By Ambrose L. Ranney, A.M., M.D. Cloth; 8vo; pp. 321. Price, $2.00. The F. A. Davis Co., Philadelphia.

This volume comprises the substance of several monographs the author has published from time to time during the past ten years, along with an addition of considerable new matter. It is also prepared with special reference to the amelioration or cure of chronic nervous derangement without the aid of drugs. The second chapter deals with the tests of vision and ocular movements, and is extraordinarily complete.

THE ROLLER BANDAGE. By William B. Hopkins, M.D. Cloth; 16mo; pp. 130. Price, $1.25. The J. B. Lippincott Co., Philadelphia.

The fact that this little volume has reached a fourth edition is evidence that it has found a large number of readers. It is very concise and practical, illustrated by half-tones taken from photographs. Any person desiring a hand-book on bandaging and surgical dressings cannot do better than to secure this.

THE CENTURY. Price, 35 cents; $4.00 per year. The Century Co., New York.

The principal articles in the Midsummer Holiday number are: "The Lordly Hudson," by Clarence Cook; "A Journey in Thessaly," by Thomas D. Goodell; "The Argonauts," by William P. Foster; "Hugh Wynne, Free Quaker" (x), by S. Weir Mitchell; "The Alaska Trip," by John Muir; "His Language," by Ella W. Wilcox; "Down to Java," by Eliza R. Scidmore; "A Day in Norway," by Horace E. Scudder; "Another Day in Norway," by Hjalmar H. Boyesen; "Characteristics of Jenny Lind," by Henri Appy; "What Jenny Lind did for America," by Fanny M. Smith; "John Burroughs," by Hamilton W. Mabie; "On Margate's Sands," by Elizabeth R. Pennell; "Controversies in the War Department," by General John M. Schofield; "Campaigning with Grant," by Horace Porter; "The Days of Jeanne d'Arc," by Mary H. Catherwood; "A Windstorm on the Caribbean," by Louise M. Sill; "Concealed Weapons," by Margaret S. Briscoe; "Ursula," by Robert U. Johnson; "Up the Matterhorn in a Boat" (II), by Marion M. Pope; "A Person and a Picture." There are the usual departments.

ARCHITECTURE AND BUILDING. Price, 10 cents; $4.00 per year. William T. Comstock, New York.

Contents for July 24th: "United States Art Commission;" "The National Electric Code;" "Editorial Notes and Comments;" "The Parthenon, and the Earthquake of 1894" (II); "A Novel Bridge at Rouen;" "Architecture in Relation to the Crafts" (II); "New York Civil Service Examinations;" "Societies;" "Personal;" "Obituary;" "Current Notes;" "Special Mention."

The July 31st issue contains: "Business Prospects;" "Editorial Notes and Comments;" "The Planning and Construction of High Office Buildings" (VIII); "Charter Granted to the T-Square Club, or the T-Square Club Incorporated;" "Thesis Drawings of the Columbia School of Architecture;" "A Great International Competition;" "New York Library"—Preliminary Competition; "Master Builders' Exchange, Philadelphia;" "Obituary;" "Societies."

ST. NICHOLAS. Price, 25 cents; $3.00 per year. The Century Co., New York.

The chief papers in the August number are: "Peter Spots, Fireman," by C. T. Hill; "Master Skylark" (XXX–XXXIII), by John Bennett; "Priscilla's Fairy Godmother," by Gertrude Halladay; The Dandelion's Complaint," by Elizabeth S. Hicok; "A Philosopher," by Tudor Jenks; "The Last Three Soldiers" (XVII–XIX), by William Henry Shelton; "Some Common Bees and How They Live," by A. H. Verrill; "On the Grand Banks and Elsewhere," by Gustav Kobbé; "Miss Nina Barrow" (XI), by Frances C. Baylor; "A Jingle-Jangle," by Rosalie M. Jonas; "Twiddledewit," by Martha Finley; "When King Kijolly Farming Goes," by Rudolph F. Bunner; "My Musical Mouse," by Albert B. Paine; "Mother Goose Songs Without Words," by Mrs. John Orth. There are the usual poetry and departments.

GODEY'S MAGAZINE. Price, 10 cents; $1.00 per year. The Godey Company, New York.

In the August issue W. D. McCrackan writes of "Those Blessed Tyrolese;" "Woman's Work at the Tennessee Centennial" is by Anna N. Benjamin; "The Theatrical 'Review,'" by Beaumont Fletcher; "Mountaineering on the Western Coast," by Norman Long; "The Story of a Mexican Jar," by Robert O. Babbitt; "A Modern God," by H. W. Phillips; "What was Her Answer?" by Everett McNeil; "Cutting the Last Stalk of Cane," by Mary W. Mount; "Birch Island," by Fred Stamper; "The Revenge of Duncan," by Robert C. V. Meyers; "A Legal Advertisement," by Edward Bushnell; "Where the Burros Browsed," by Idab M. Strobridge; "A Hudson River Idyl," by Emma P. Telford; "A Bedouin Dance," by Eleanor Hodgens; "A Daughter of Kentucky," by Elmore Elliott. There are the usual departments and poetry.

OUTING. Price, 25 cents; $3.00 per year. The Outing Co., New York.

The August number contains just the sort of reading for these sultry days, and it is superbly illustrated. The contents are: "Golfers in Action," by Price Collier; "The Fishes of Our Boyhood," by Ed. W. Sandys; "Ingleby's Neighbor," by M. Gertrude Cundill; "Some of the Season's Yachts and Freaks," by A. J. Kenealy; "Tenting on the

Rio Grande Del Norte," by Mrs. L. E. Smith; "Coasting the Mediterranean Awheel," by Paul E. Jenks; "The Match Game," by William A. Walker; "The Poughkeepsie Boat Races," by Chase Mellen; "Polo in Play," by A. H. Godfrey; "Cycling Clubs and Their Spheres of Action;" "The Cycle and Photography," by Doctor John Nicol; and the usual editorials, reviews of sporting events, and records up to date.

THE CANADIAN MAGAZINE. Price, 25 cents; $2.50 per annum. Ontario Publishing Co., Limited, Toronto.

In the August issue "Measure Mending" is by C. R. Coutlée; "Taleak of the Soosoon," by Percie W. Hart; "My Contemporaries in Fiction," by David Christie Murray; "The Temptation of John McNairn," by H. J. O'Higgins; "A Glimpse of Norway" (II), by Winnifred Wilton; "Children of the Town," by Esther T. Kingsmill; "The Royal Canadian Academy," by James Smith; "Hagar of the Pawnshop," by Fergus Hume; "To Cape North," by J. W. Longley; "The Courting of Ursule Clarisee," by G. M. Fairchild, Jr.; "The Novels of Balzac," by L. J. Burpee; "Summer Paths" and "A Word from Canada," poems by John S. Thomas and Francis Sherman respectively. There are the usual departments.

THE AMERICAN MONTHLY REVIEW OF REVIEWS. Price, 25 cents; $2.50 per year. The Review of Reviews Co., New York.

The August issue devotes itself with accustomed thoroughness to the new tariff. The editor, in "The Progress of the World," discusses the subject in its general bearings; also is discussed in this department "Ultimate Colonial Sovereignty;" "Japan and Hawaii;" "The Civil Service and the Office-Seekers;" "The Harvest and its Reward;" "The 'Federation of Europe' and the Turks;" "Reform in the Consulates;" "Special Duties" is by Charles A. Conant; "South Africa, the Home Land of the Boers," by Francis E. Clark; "Schools in the Summer Time," by E. A. Kirkpatrick; "Vacation Schools," by W. H. Tolman; "The Varied Climate of Hawaii," by C. F. Nichols.

SCRIBNER'S MAGAZINE. Price, 25 cents; $3.00 a year. Charles Scribner's Sons, New York.

The chief articles in the current issue are: "The Unquiet Sex," by Helen W. Moody; ".007," by Rudyard Kipling; "Its Walls Were as of Jasper," by Kenneth Grahame; "A Prayer for Rain," by Rupert Hughes; "Impressions of Mount Rainier," by Israel C. Russell; "A Rustic Calendar" (with four illustrations in color by H. Vogel), by Marguerite Merington; "The True Story of Commandant Lièvre," by Molly Elliot Seawell; "The Workers," by Walter A. Wyckoff; "Thalatta," by Blanche Willis Howard; "The Buller-Podington Compact," by Frank R. Stockton; "The Stolen Story," by Jesse Lynch Williams; "The Story of a Play" (XXI–XXV), by W. D. Howells. There are the usual departments.

LIPPINCOTT'S MAGAZINE. Price, 25 cents; $3.00 per year. The J. B. Lippincott Co., Philadelphia.

The complete novel in the August issue is "Two Daughters of One Race," by Edgar Fawcett; "Bird Artists" is by Frank H. Sweet; "Are You Going to College?" by A. L. Benedict; "Our Street Names," by W. W. Crane; "Private Barney Hogan," by Charles D. Rhodes; "A Similitude of Ships," by M. A. De Wolfe Howe; "The Book Which Has Most Benefited Me," by Annie S. Winston; "The Charm of the Inexact," by Charles C. Abbott; "Two Letters," by Frances M. Butler; "The Marine Hospital Service," by Joanna R. Nicholls; "Singing: Its Past and Its Possibilities," by Gertrude E. Wall; "Jonathan Hale's Book," by Edith Dickson. There is the usual poetry.

THE PHRENOLOGICAL JOURNAL. Price, 10 cents; $1.00 per year. The Fowler & Wells Company, New York.

In the August issue Jessie A. Wells writes of "The Honorable William L. Strong, and a Few Prominent Leaders in the Educational World," and of "Doctor and Mrs. Dio Lewis;" Nelson Sizer writes of "Why People Are Unlike" and "Child Culture;" "Phrenotypes and Side-views" is by H. S. Drayton; "Phrenology," by George Morris; "Phrenology as an Aid to Teaching in Schools," by William Brown; "The Phonograph as a Teacher," by A. L. Leubuscher; "The Amateur Phrenological Club" (I), by Elsie C. Smith. There are the usual departments.

THE DECORATOR AND FURNISHER. Price, 20 cents; $2.00 per year. The Art Trades Publishing and Printing Co., New York.

In the August issue are "Articles of General Interest;" "Of Interest to Women;" "Editorial Annotations;" "A New Black and White Art;" "Table Decorations;" "Design for a Modern Dutch Dining-room;" "Cosy Nooks and Corners for August;" "An Artist's Home;" "Design for a Hall Mantel;" "Art Furniture at the Paris Salon" (concluded); "Design for a German Dining-room;" "Wood Carving for Amateurs;" "A Dainty St. Louis Parlor;" "Decorative Notes;" "The Growth of Ornamental Work in Ceramics;" "Art in Duplicate."

THE AMERICAN KITCHEN MAGAZINE. Price, 10 cents; $1.00 per year. The Home Science Publishing Company, Boston.

In the August number Mrs. M. V. Shaler writes of "The Care and Waste of Food;" "The Chemistry of Cooking and Cleaning" is by Ellen H. Richards and S. Maria Elliott; "Rambles Around Halifax," by Allan Eric; "Sterilization and Pasteurization of Milk" is described; "A Basketful of Fungi," by Annie P. Doughty; "Infantile Mortality," by Henry B. Baker, M.D.; "Tortillas the National Bread of Mexico," by Rachel H. Adams. There are the usual departments.

THE AMERICAN ANTIQUARIAN. Price, $4.00 per year. Stephen D. Peet, Good Hope, Illinois.

The contents of this bi-monthly (for May and June) are: "A Canon in Prehistoric Archeology," by Thomas Wilson; "The Prehistoric Route from Asia to the Western Coast of America," by J. Crawford; "Aboriginal Remains of Balsam Lake, Ontario," by G. F. Laidlow; "The Formation of Coral Reefs," by John Fraser; "Egyptological Notes," by W. C. Winslow. There are the usual departments.

Therapeutic Brevities.

Rectal Gonorrhœa in Women.—In the past year Dr. Baer has received in his service 296 women with affections of the genital organs. Of these, 105 had syphilitic lesions exclusively; 191 presented simple blennorrhœa. Of the 191 with gonorrhœa, 67 presented the affection in the rectum.

Theoretically, according to the author, the infection occurs in three different ways: Directly through abnormal coitus: Indirectly from the communication with the rectum of an organ attacked with gonorrhœa: By the conveyance of the germs from without by pus, or by therapeutic measures (thermometry, irrigation, etc.).

As to the first, the objective symptoms (form of the anus) are very inconstant, and one cannot always believe the patient: The second mode is rare: The great majority are caused by carrying toward the rectum the infectious fluid from the vulva. The urethral discharge frequently is not of sufficient copiousness to make it responsible; but this is not true of the discharge proceeding from the cervix in metritis. Infection occurs with greater facility in prostitutes and in women who have been pregnant numerous times.

Some patients complain of marked pain on defæcation; others discharge both pus and blood *via ano.* The mucosa is congested, and bleeds easily in consequence of erosions produced by maceration and epithelial desquamation. Speculum examination reveals lustrous folds of the mucosa, is but slightly painful, and there are no disorders of defæcation.

Treatment consists of injections of three-per-cent. solution of boric acid, and to diminish the secretion and destroy the virus, solution of nitrate of silver 1 to 3000, employing a quart of each solution. This should be continued for from five to six weeks. When an exacerbation occurs, it is difficult to decide whether or not a new infection has taken place.—*Medical Standard.*

Sprained Ankle.—In an acute sprain, if I find the parts very much swollen, it is better to have the patient lie down for awhile, with foot elevated, and employ massage; this will, in short while, lessen the puffiness and tenderness. Cut strips of rubber adhesive plaster half an inch wide and long enough to completely encircle the foot; then, with the foot still elevated, begin strapping the foot, ankle, and lower third of leg as you would an ulcer; let the first strip come over the outer side of the foot down near the base of the little toe,—it should be put obliquely so that the next strip should cross this, one end beginning near the heel and terminating under the ball of the great toe. The third strip overlaps the first about one-half, and is snugly applied, while the fourth overlaps the second in same direction, and so on until the foot, ankle, and lower third of leg is completely covered.

This makes a firm anklet, really a Scultetus bandage. Put a cheese-cloth bandage on over the rubber plaster to make the plaster adhere closely, and prevent the stocking from sticking to edges of plaster that might turn up, and let it remain on until it wears off or becomes loose; a second application may be necessary in a very bad sprain. Instruct the patient to put on stocking and shoe, and use the foot. In chronic sprains apply the bandage the same way.

This treatment was published in 1885 by Mr. Cottrell, of London, the late house surgeon to the University College Hospital.—M'Cabe, in *Medical Brief.*

Paralysis Agitans.—Hyoscyamine is coming to the front with promise of relief for this disease, which has long been looked upon as a *bête noire* of the profession. Notwithstanding favorable results from the administration of a remedy by no means justifies a claim for it as a specific, yet the experience of Chalmere, of Chicago, is a sufficient warrant for a test of the drug in similar cases. The first case was that of a clergyman, where the shaking of the head and the right upper and lower extremity had been on the increase for four years. A drop of solution of hydrobromide of hyoscyamine, two grains to the ounce, was put into the eye; in twenty minutes the shaking had entirely ceased and at the end of three-quarters of an hour speech was difficult and the patient unable to rise from his chair. This partial paralysis gradually disappeared, there being no return of the shaking for several hours. In this case the use of a solution of one grain to the ounce was sufficient, applied at stated times to keep the patient entirely comfortable. Even a temporary relief obtained without injury to the system will be hailed with gratitude.—*New York Medical Times.*

Scarlet Fever.—The most prominent symptom is the high pulse. The contagious element lies in the desquamative, bran-like scales from the surface of the body, together with the salivary secretion and the excretions of the bowels. Scarlet fever, therefore, is a

disease that cannot infect by inhalation, but the very light, desquamative substance thrown off from the surface of the body may float through the air of the room and light upon some part of the person and thence be carried to the mouth; this is mainly the way it is transferred from person to person. If the salivary secretion and the bowel excretions are properly taken care of, there is no danger from this source. If before desquamation begins the body be thoroughly rubbed with oil the scaling off of the skin is largely prevented, the itching and burning sensations alleviated, and the danger of contagion vastly reduced. The room also will scarcely become infected. Sponge baths frequently administered add to the comfort of the patient by reducing the temperature and also lessen the danger resulting from desquamation.—MARTIN, in *Pediatrics*.

Sterility.—Many a household is rendered unhappy by the absence of children. This is sometimes owing to the husband and sometimes to the wife, but in many cases it is almost impossible to determine the real cause of the trouble. Here Jones, of Edinburgh, counsels not to forget the sedative affinity of belladonna toward the female sexual organs, and gives an opinion that the drug is followed by more or less benefit in every disease to which these parts are liable; and in married women who, though apparently enjoying the best of health and never suffering from any irregularity of the sexual organs, are yet sterile, the exhibition of belladonna internally for some weeks is so frequently followed by pregnancy as to preclude considering the occurrence as a mere coincidence. Though advancing no theory in regard to the matter, Jones has noticed that during the exhibition of the drug the external genitals become more relaxed and the os and cervix more pliable and softened.—*Medical Times*.

Pott's Curvature.—Put the patient under an anæsthetic, while four assistants pull the upper and lower extremity of the spinal column backwards, the operator meantime exerting strong pressure on the convexity of the curve. When the spine has thus been straightened a plaster jacket reaching from the head to the pelvis should be applied. If it is impossible to correct the curve by these means, the projecting spinal processes should be removed. Exceptionally, however (in two out of thirty-seven cases), the posterior wedge of bone which prevents the vertebral column from being straightened must be excised; then, after cutting through the bone anterior to the spinal canal, the column can be replaced in its normal position. Only five to ten months are needed for a cure, instead of two to three years, as under usual treatment, and the occurrence of paralysis is largely prevented.—CALOT's Report to the Académie de Médecine, Paris.

Infantile Diarrhœa.—Magnesium sulphate is an excellent means of combating cholera infantum, as it attenuates the irritating properties of the gastro-intestinal contents, which it renders alkaline, counteracts the congestion of the diseased mucosa by stimulating secretion of its glands, and lastly favors evacuation of the matter undergoing fermentation. It is best administered once a day in doses varying from four to fifteen grains, according to the age of the infant; is moistened with a little water, in order to facilitate swallowing. In spite of the disagreeable taste little difficulty is encountered in administering.

As a result the pain and restlessness rapidly cease, and the stools gradually resume their normal color. Of eighty cases of infantile diarrhœa treated, only two were fatal, recovery being obtained in the other seventy-eight within from two to nineteen days—PATTERSON, in *North American Practitioner*.

Poisoning by Muriatic Acid.—These cases are rare. A woman fifty years of age, by mistake drank about one tablespoonful of pure muriatic acid. Besides burning and pain in the stomach, vomiting, diarrhœa, and cramps in the lower extremities, there were: Absolute loss of tendinous reflexes on the first day of poisoning,—this symptom, which disappeared on the second day, has not thus far been observed: Entire absence of injury of mucous membrane of the mouth: Albuminuria, the sediment of the urine containing numerous hyaline and granular casts and purulent corpuscles: One day's fever (102° F.) on the sixth day without apparent cause. —LANDE, in *Gazeta Lekarska*.

Soft Chancre.—Szántó declares of all the means employed against soft chancre the following ointment is best:

℞ Salicylic acid, 15 grains.
Vaselin, 450 grains.
Tincture of benzoin, 30 grains.

The ulcer is first washed with a solution of corrosive sublimate and then covered with a piece of gauze, well charged with the ointment. It will heal most rapidly. The tincture of benzoin is added not only to perfume

the ointment but also to increase its activity, as it has the property of holding the salicylic in a state of solution.—*North American Practitioner.*

Intubation.—Wrap the child in strong muslin or a large towel, with hands crossed over abdomen, as in this way more room is left for the operator's manipulations.

There can be no exact rule laid down as to how long the tube should be allowed to remain in the larynx, but it is better to err on the safe side. After removal there will always be more or less obstruction, but if this is not very marked it should not cause uneasiness. Many have advised that in feeding an intubated child it should be laid on its back with head hanging over the edge of the nurse's lap, but the best position is with face downward.—*Nursing World.*

Corrigent of Chloroform and Ether.—

℞ Morphine muriate, 30 grains.
Atropine sulphate, 2 grains.
Chloral hydrate, 2 grains.
Distilled water, 6 ounces.

M. From fifteen to twenty minims to be given subcutaneously before beginning anæsthetization.

Fraënkel states he has used this in thousands of gynæcological and obstetrical operations, without a single death or serious case of asphyxia due to chloroform and almost without any unpleasant effects of the anæsthetic.—*Medical Review of Reviews.*

Creosote in Pneumonia.—This drug is a cardiac and nervine stimulant. In twenty-six cases of pneumonia, forming part of a somewhat serious epidemic, it was given on the third day of the disease and all recovered. Some were treated with creosote, in tincture of gentian, alone; in others this was supplemented by digitalis or caffeine in small doses. The cases treated with creosote recovered more rapidly and more thoroughly than those treated in other ways. I pushed the drug boldly, but never saw any unpleasant symptoms follow its use.—Casati, in *British Medical Journal.*

Bronchial Catarrh.—Some six years ago I prescribed Hydrastis Canadensis for a patient suffering with tuberculosis of the larynx and apex catarrh, the immediate occasion of its employment being a trifling hæmoptysis. Four days later I found that for three days there had been no blood in the expectoration, and furthermore, that a tormenting cough with which he had suffered had completely disappeared; also the expectoration had become decidedly less, and the character of the sputum had changed.—Saenger, in *Centralblatt für Innere Medicin.*

Indigestion.—A favorite combination is equal parts of deodorized tincture of opium and Fowler's solution, one or two drops of the mixture to be given in water ten or fifteen minutes before eating. The addition of two to four minims of dilute hydrocyanic and ten minims of spirits of chloroform serves to reinforce the good effects of the opium and arsenic, and to these ten or twenty grains of finely powdered subnitrate of bismuth should be added in intractable cases.—D. D. Stewart, in *Denver Medical Times.*

Cancer of Stomach.—In the vomiting of this affection Robin prescribes from five to eight drops of the following solution, to be taken from five to ten minutes before each meal:

℞ Picrotoxin, 0.05 centigramme.
Hydrochlorate of morphine, 0.05 centigramme.
Neutral sulphate of atropine, 0.01 centigramme.
Aq. laurocerasi, 10 centigrammes.

M.

—*Practical Medicine.*

Tinea Favosa.—Wash scalp with tincture of green soap, shave the affected area, and then apply:

℞ Carbolic acid, 150 grains.
Balsam Peru, 150 grains.
Petroleum, 3 ounces.
Glycerin, 3 ounces.

If the hair grows rapidly the shaving may be repeated every two or three days.—Khrenitchek, in *La Semaine Médicale.*

Sweating Feet.—Wash once or twice daily with a two-per-cent. solution of formalin. Especial attention should be paid to the plantar surface and to the interdigital spaces. The fœtid odor usually disappears after a few days. It is well to rinse the stockings and shoes also with the same solution, particularly the inner side of the sole of latter, which should afterwards be wiped dry.—Frey.

Quinine as an Oxytocic.—Usually the drug acts within twenty to thirty minutes, and should be given in two doses of eight grains

each, repeated after an interval of ten minutes. It is indicated when uterine contractions are insufficient or inertia exists during the dilatation of the cervix, and when the health of the mother or child is threatened, especially when the membranes have ruptured and delivery must be hastened.—*University Medical Magazine.*

Enuresis.—Incontinence of urine in children and adults is treated by the Fiorani method, which consists in attaching to the wrist a weight of from fifty to one hundred grammes, hanging over the foot of the bed. Considering the condition one of psychic origin, or, as he expresses it, a somnambulism of the bladder, the mechanical treatment is usually efficacious.—*Medical Record.*

Chronic Interstitial Nephritis.—

℞ Mercuric bichloride, 1 grain.
Muriate tincture iron, 2 drachms.
Sweet spirit of nitre, 2 ounces.
Water, 12 drachms.
Simple elixir, to make 4 ounces.

Teaspoonful in water after each meal.

—*New England Medical Monthly.*

Vaginal Suppositories.—

℞ Acetanilid, 75 grains.
Tannin, 8 grains.
Extract hyoscyamus, 4 grains.
Milk sugar, 150 grains.

For one suppository.

—*Journal de Médecine de Paris.*

Chapped Hands.—

℞ Menthol, 10 grains.
Olive oil, 20 minims.
Salol, 20 grains.
Wool-fat, 12 drachms.

Apply to the affected parts twice a day.

—*Atlanta Medical and Surgical Journal.*

Seminal Emissions.—

℞ Potassium bromide, 1 ounce.
Muriate tincture iron, 1 ounce.
Distilled water, 3 ounces.

One to two teaspoonfuls after each meal and at bedtime.

—*Norsk Magazin for Lægevidenskaben.*

Scabies.—Tincture of benzoin, which is analogous in chemical composition and odor to balsam of Peru and styrax, has been employed for the treatment of scabies, and affords a simpler and more convenient method of destroying the parasite.—De Holstein.

For Local Anæsthesia.—

℞ Chloroform, 10 parts.
Ether, 15 parts.
Menthol, 1 part.

The anæsthesia resulting from this application lasts about five minutes.—Le Gerant.

Anti-Neuralgic Powder.—

℞ Powdered guarana, 10 grains.
Muriate of quinine, 2½ grains.
Sodium bicarbonate, 10 grains.
Sodium salicylate, 10 grains.

For one dose.

—*Le Scalpel.*

Bromide of Potassium in Epilepsy.—This should be given in sufficiently large doses, from 60 to 90 grains per day for an adult, or if this is not sufficient, from 120 to 150 grains—perhaps even 300 grains.—Fere, in *Gazette des Hôpitaux.*

Atropine and Quinine.—The tinnitus aurium due to quinine can be considerably diminished by prescribing with atropine. The amount of atropine should be about $\frac{1}{120}$ grain daily.—Aubert, in *La Médecine Moderne.*

Gout.—

℞ Tincture of stramonium, 60 grains.
Tincture of colchicum, 90 grains.
Tincture of guaiacum, 900 grains.

Three teaspoonfuls daily in milk.

—Gayle.

Granular Conjunctivitis.—Apply every day or two equal parts of glycerin and tincture of iodine; in a few days the mucous membrane will present a smooth and healthy appearance.—*Summary.*

Silver Nitrate Stains.—Apply with cloth, then rub, the following: Mercury bichloride and ammonium muriate each one part, distilled water eight parts.—*Medical Progress.*

Coryza.—The following may be sprayed into the nose: One part each of ichthyol, ether, alcohol, to ninety-seven parts distilled water.—*Times and Register.*

Medical Progress.

WHY PUBLIC BATHS ARE ESSENTIAL. — Bathing of the human body as recorded in sacred and ancient history was a prescribed sacred ritual for purification, especially for accidental, leprous, or ordinary uncleanness. A bathing chamber was probably provided in the houses of the lower ranks in early times, as well as in those of the wealthy, the latter with much elaboration and elegance; these were often in the gardens of the wealthy. The pools of Bethesda, Siloam, and Hezekiah are among the first indications of public baths established for promiscuous public bathing.

In all religious ceremonies the high priests were required to purify themselves by bathing before performing religious services; uncleanness of person was considered sinful. Even the leper was commanded to go and wash in the pool of Siloam seven times before he could be made whole.

Body exhalations are impurities oftentimes poisonous, infective, and contagious, and which Nature by her constant physiological activity in the human system, through sensible and insensible perspiration, endeavors to get rid of; and healthy conditions can only be maintained by removing these poisonous elements from the cutaneous surface by bathing. The millions of cutaneous pores, covering the whole body surface, must be relieved of these exudations or ill health will be the result. Purification increases cutaneous blood circulation, stimulates nerve radicals, eliminates and removes effete and poisonous accumulations, and renders the blood purer, promoting healthy action and strength.

Athletic training of gladiators and soldiers of the olden times among the Greeks and Romans by the daily use of the bath was considered indispensable; and even at the present time no athlete, whatever the sport, can afford to ignore this important adjunct in his preparation for any great physical effort. Common laborers and muscular toilers need the bath quite as much, to remove the effete exhalations from their perspiring bodies, to maintain strength and muscular activity. All health resorts throughout the civilized world hold forth their bathing facilities as great inducements to those seeking renewed health.

The treatment of diseased conditions at the present day is largely relegated to the various water appliances. Impure air, unbathed bodies, absence of sunlight, are largely the inciting factors of the poisonous germs of typhus, as of less malignant diseases. Where else can one find this combination better than in the densely-populated tenement-house districts of large cities? for here no baths are provided in their airless and sunless domiciles. Impurity, uncleanness, and ill health go hand in hand. In the common lodging-houses, again, are found like conditions intensified; typhus fever — that fatal disease — easily finds lodgment therein.

In the tenements the practise of bathing is almost an impossibility, since a tub filled with water is the only resort. In this limited supply the water soon becomes befouled, and the impossibility of cleanliness by its use is evident. Such conditions do not encourage the practise of bathing.

A bath that does not effectually remove from the surface of the body all impurities and constantly supply fresh pure water is not a bath of purification. A small modicum of surface dirt may be washed off, but the pores of the skin are but partially relieved of their clogged-up mouths, filled with the effete products of physiological activities; neither is the cold bath alone sufficient for good purification. Hot or very warm water, with plenty of soap, is necessary to dissolve and remove the oleaginous exudations which are always present.

In the sea-water swimming-baths the alkaline condition of the sea water is an important adjunct for cleansing purposes, useful and invigorating, provided the water is clean, and free from sewage contamination. Objectionable as this may be, from a sanitary point of view, the popularity of these cooling, pleasure-giving summer swimming baths is shown by the enormous number of bathers. It is a pertinent question what number of persons would avail themselves of a system of free public baths with hot and cold water always provided the year round?

No better system for promoting the public health could be devised, except perhaps tearing down both front and rear tenement houses, where impaction takes place and where sunless and airless abodes are the rule. These public baths with hot and cold water would become immensely popular and put to frequent use, affording facilities for a cleanly body the year round.

The hygienic environments that unquestionably surround public bathing establishments and public comfort stations are directly and indirectly conducive to the elevation, both physically and morally, of those now compelled, for want of proper facilities, to go unbathed for weeks, months, and even years.

It needs no extended argument to convince any intelligent person that such conditions of personal uncleanness are very great

menaces to health and danger to the public. The recent developments of the science of bacteriology have demonstrated the presence of subtle, poisonous germs, and that the body exhalations of an unwashed sample of humanity, with whom one is brought in contact in crowded cars, may, unknown, communicate a deadly fever germ.—*The Sanitary Record.*

Some Unknown Phenomena in Intoxication.—Acute alcoholic intoxication is always marked by a general palsy of the senses and reasoning. At the first, delusional egotism, with deliriums of suspicion and credulity, and general confusion of thought are present: then an increasing confusion and mental enfeeblement, also a general lowering of all emotional and functional activities. The reasoning is obscure and deranged, certain ideas may fill the mind to the exclusion of all others, together with mental instability of thought, such as changing suddenly from one topic to another. In all cases degrees of dementia, with profound and progressive palsy, are the marked symptoms. These are so prominent and common that no one doubts the insanity and imbecility of an intoxicated person. In a certain number of cases in this condition there has been noticed sane moments and intelligent reasonings, with clearness of judgment and perception, equal, if not superior, to the highest brain activity in its normal state,—in a semi-comatose state the mind will suddenly display a degree of wisdom and sanity in some opinion or advice, then sink back into its demented condition. Usually these sane thoughts refer to his present condition, as in the following:

A man profoundly intoxicated, while being taken to the station-house, said to the officer: "I was overcome with the heat and drank some whiskey; my brain has given way. Take me to the hospital." He was found dead in the station-cell next morning. His statement was true.

These sane moments sometimes concern the acts and motives of others, as in the following:

A man in a pronounced alcoholic delirium said: "I have willed my property to a banker to avoid arrest for using trust funds. I have returned all the money, but he has refused to give up the deeds. He has been urging me to drink on every occasion and wishes to destroy me." He recovered, and this was found to be true, although he never referred to it when restored.

An inebriate in a comatose condition suddenly begged his mother in St. Louis be written to, but when he recovered he had no memory of this. The letter to his mother was the first news she had had from him for two years.

A stupid comatose inebriate, son of a business man, when his father complained of financial stringency, suddenly said: "Discharge my brother and put a stranger in his place and times will be better." The father did this and wrote that he found and stopped a serious defalcation. The inebriate son did not remember this remark and could not understand why he made it.

These cases show that certain ideas are formed and expressed unconsciously, leaving no impress on the memory, and appear in the stupor and palsy of intoxication. Probably some special exciting cause brings them to the surface as flashes of reason and conceptions of truth, then all is a blank again. Of course these incidents are not common to all intoxicated men, but exceptional. Occurring as they do in the extreme palsy from spirits, they suggest the operations of consciousness below the senses, and behind the phenomena of ordinary brain activity. The shrewd remarks and wise advice of intoxicated men at times are out of harmony with their present or past actions in the same condition. These sane moments are marked in some cases who, when clearly intoxicated, seem to have flashes of wisdom unusual at other times. The remark so often made by the laity that states of intoxication in certain men are followed by greater wisdom and judgment than ever manifested during their sober periods is a recognition of this condition. The theory of double consciousness applies and explains much of this phenomena. The ordinary consciousness is palsied by spirits, and can act only along automatic lines. The subconsciousness or subliminal sense breaks through this palsy and asserts itself in wise comments or statements of events, predictions, and sane thoughts. It is certain these manifestations come from deeper and less impaired mentality, and are not mere accidents and morbid impulses of the moment.

The gathering and grouping of a number of well authenticated incidents of this class may bring out some laws and conditions which control these at present very obscure phenomena.—*Quarterly Journal of Inebriety.*

Functions of the Lumbar Cord.—In the Proceedings of the Royal Society there is an abstract of an interesting paper by Doctor Page May describing a series of investigations into the segmental representation of movements in the lumbar region of

the mammalian spinal cord. The method mainly followed was that by excitation of nerve roots and also of the spinal cord, and as a means of controlling the observations with this method, mechanical stimulation (pinching, etc.) was sometimes employed in examining the nerve roots. The dog and the monkey were the animals chiefly experimented upon, and in the dog the excitable area of the cord surface was found to be the postero-external column. Stimulation of Goll's column produced no movement except in the lower lumbar region, where that column is very small or absent, and where the effect was probably due to the stimulus directly affecting the fibers of the postero-external column. The movements, as a rule, were limited to the side stimulated, and movements in the lower limb could be produced by stimulation of Burdach's column from the upper border of the thirteenth dorsal segment to the lower border of the first sacral segment, and the areas, stimulation of which produced movements of limbs, arms, and tail, overlapped one another, the hip area, however, being nearer the cerebrum than the knee area, and the knee area higher than the foot area. When the cord was transversely divided above the lumbar enlargement the movements were more easily elicited. It was also found that the point the stimulation of which gave movement of the tail was placed internal to the point for the hamstrings, this again internal to that for the hip, while most external of all was that by stimulation of which movement of the side of the trunk was elicited.

Stimulation of the nerve roots gave very interesting results. Stimulation of an anterior root gave, on the whole, a quick, powerful extension of the whole limb; excitation of the corresponding posterior root resulted in flexion of the whole limb. This result was quite constant, and by many facts it seems to be evident that the path along which the impulses pass, as evidenced by movement elicited in stimulating a certain posterior root, is directed toward a point below the level of that posterior root, and not, as might be supposed, in the same segment or above it. The same general results were obtained by stimulation of the spinal cord and nerve roots in the monkey. The area found excitable was the postero-external column, stimulation of which, from the thirteenth dorsal to the second sacral segment inclusive, produced lateral flexion of the spinal column, flexion and adduction of the hip, flexion of the knee, ankle, and toes, and movement of the tail and perineum, and peristalsis. And it was also quite definite that the area stimulation of which produced movement of the tail, was nearer the middle line than that for the hamstrings, while this area was nearer the middle line than that for flexion at the hip, and so on. The same general effects as in the dog were obtained by stimulating the anterior and posterior nerve roots. The conclusions arrived at are:

That any reflex center derives its chief afferent impulse from a nerve root entering the cord, as a rule, about two segments higher:

The fibers of the postero-external column are arranged in a definite order from within outward, the innermost representing the most distal part of the tail, and:

Stimulation of anterior roots in the dog produces extension, of the posterior roots flexion, of the limb as a resultant movement. —In the monkey there is not this apparent antagonism, because stimulation of anterior roots brings out a differentiation of flexion and extension, although stimulation of the posterior root gives flexion alone.

The paper, as will be seen, forms a valuable contribution to the physiology and anatomy of the spinal cord, and we await with interest the study of the results of similar methods applied to the investigation of the cervical and upper dorsal cord.—*The Lancet* (London).

Some Curious Bullet Wounds. — The extraordinary course often taken by bullets after they have entered the body is of course one of the familiar facts of medicine. It was well illustrated by a case recently mentioned by the special correspondent of a daily newspaper. The bullet entered the mouth, which must have been open at the time, and made its exit above the shoulder blade. Here it seems possible that both base of skull and spine may have been concerned in this curious deflection. In another case, a man who was shot transversely through both hips felt no pain at the site of the wound, but suffered excruciating agony below the right knee, evidently due to implication of a nerve trunk. One of the most extraordinary bullet-tracks on record was described by Staff-Surgeon Stephens, in a recent issue of the *British Medical Journal*. The patient was a Cretan Mussulman, who was struck by a ball from a Gras rifle. The missile first caused a comminuted fracture of the left thumb, which was in contact with the chest wall. It then entered the chest two inches above and two inches to the inner side of the left nipple, glanced round the ribs to the left scapula, which deflected it downwards to the crest of the left ilium. It then passed nearly verti-

cally upwards and made its exit about one and one-half inches below and in a line with the inferior angle of the left scapula. To wind up its billet this energetic bullet tore off a large piece of the pectoral muscle of a child that the old man appears to have been carrying on his back.—*Medical Press.*

Changes in Milk by Boiling.—There are reasons for supposing that when fresh milk is ingested the living cells are at once absorbed without any process of digestion, and enter the blood-stream and are utilized in building up the tissues. The casein of the milk is digested in the usual way of other albuminoids by the gastric juice, and absorbed as peptone. There is also absorption of serum albumen by osmosis.

The chemical result of boiling milk is to kill all the living cells and to coagulate all the albuminoid constituents. Milk after boiling is thicker than it was before. The physiological results are that all the constituents of the milk must be digested before it can be absorbed into the system; therefore there is a distinct loss of utility in the milk, because the living cells of fresh milk do not enter into the circulation direct as living protoplasm, and build up the tissues direct, as they would do in fresh unboiled milk.

In practise it has been noticed that there is a very distinctly appreciable lowered vitality in infants which are fed on boiled milk. The process of absorption is more delayed, and the quantity of milk required is distinctly larger for the same amount of growth and nourishment of the child than is the case when fresh milk is used.—Kerr, in *British Medical Journal.*

Bronchial Cleft.—A youth of twenty years exhibited at birth a fulness low down on the right side of the trachea. Later in life this would at intervals greatly enlarge, open, and discharge, then close again. During the period between the ages of six and twelve years it apparently disappeared, but in the thirteenth year again manifested itself, and periodically emptied through an opening in the integument. There was no inflammation, no pain, no soreness. It seemed to spring up on the inner border of the sternal origin of the sterno-mastoid, extending to the thyroid body. He affirmed that sometimes it would attain a large volume and then again disappear entirely without opening. Neither speech or deglutition were affected.

The interior of the pharynx and larynx was carefully explored for an internal opening, but without success. It was quite impossible to determine the seat of the opening in this case, whether into the larynx, pharynx, the trachea, the œsophagus, or the pleural cavity. In the absence of any marked deformity or derangement of function it was thought best not to interfere with surgery.

One colleague has seen a bronchial fistula in a young man which gave issue to a mucosanguinolent material; a flexible stylet entered as far as the cornu of the hyoid bone; and by palpation a fibrous cord could be felt passing deeply under the large vessels of the neck. Another had two cases which yielded to electrolysis. Still another had a case, the fistula in this instance extending from the subhyoid region to the sternal fourchette; this trunk was resected, but relapse occurred within a month.—Burger, in *Bulletin et Memoires des Société de Chirurgie.*

Retention of Chlorides in Uræmia.—Bohne has studied the results of retention of chlorides in the animal organism by experiments on mice and guinea-pigs. A concentrated solution of sodium chloride was injected under the skin of the abdomen, and it was found that a very small dose—for example, 2.8 grammes per kilogramme of body weight—produced more or less violent clonic and tonic spasms alternating with a semicomatose condition, as in uræmia, and in some cases death resulted. Clinically, a marked diminution of the output of chlorides was observed in cases of acute and chronic nephritis, and in some other conditions in which uræmia occurred. Analysis of the liver in a case where uræmia had preceded death showed marked excess of chlorides in its substance, as if the diminution of chlorides in the urine during life were due to their accumulation in the liver. The writer considers that retention of chlorides probably plays an important part in the causation of uræmia, and that estimation of the amount secreted may give valuable assistance in prognosis.—*British Medical Journal.*

Influenza and the Female Sexual Organs.—In 157 cases, twenty-one being pregnant, seventeen of the latter aborted. Of non-gravid all but three showed symptoms of uterine disturbance; hæmorrhagic endometritis commonly developed, as in cholera, typhus, and other infectious diseases. After the decline of the disease the uterus was frequently found to be enlarged, and evidences of chronic endometritis present.—*Münchener Medicinische Wochenschrift.*

The Medical Age.

VOL. XV. DETROIT, AUGUST 25th, 1897. No. 16.

Original Articles.

TWO UNNAMED DISEASES.*

BY JAMES SAMSON, M.D.

The most startling feature of this brief and unscientific paper is the glaring title with which it announces itself.

The first half of it is simply a recital of a very extraordinary experience in which no one but myself had an opportunity of taking much part, and which I take the liberty of presenting with the hope that it may have been duplicated in the practise of some one else who can help clear up what has been for years to me a mystery.

The second half of the paper is solely the taking advantage of an opportunity to put myself on record with a few observations regarding a matter of much importance to the profession and to the race.

In 1887, in an especially healthy district of one of the Western Ontario counties, I received my first knowledge regarding a disease to me entirely new, and on which I have thus far received no light either from subsequent experience or from contact with my fellow practitioners. During this and the following year I saw perhaps twenty-five cases, all identical in every respect, all following the same course, and all fortunately ending in recovery. In both years the disease began its career in August, and in the second year it revisited two of the homes it had invaded the year before.

With only the very slightest premonitory symptoms, the patient was seized with intense sickness, nausea, vomiting, aching of the entire body amounting to an actual agony, and almost crimson redness of the face; often with coldness of the hands, and a temperature never in a single instance above normal; the pulse always feeble, ranging from 130 to 150.

These were the symptoms at the outset, of which the one most manifest was the intense misery of the victim, tossing restlessly about in bed, groaning, and complaining constantly of a pain located nowhere in particular, and in some instances begging pitifully for relief. The vomiting was not very violent or constant, but the nausea was persistent, with a continual sinking sensation in the stomach. The tongue became rapidly coated with a soft whitish fur, slightly brown or yellow in the middle, and the breath had a peculiar sweetish, not offensive, odor, but differing from any other that I can recall. The bowels were simply obstinately inactive, fæces pasty, sometimes dark, and always somewhat offensive. Sitting up in bed or taking a morsel of food was sufficient to rekindle the nausea. There was no possibility of sleeping at first, and no tendency to sleep for days. There were no chills and no fever from the first to the last of any case. All these conditions, varying in degree, continued from four to ten or twelve days, ending in a very slow recovery with a marked tendency to relapse from either exertion or eating. In two or three instances there was a slight vomiting of blood, but never any hæmorrhage from the bowels, and never a condition of tympanites. The ages of the patients varied from six to sixty years, and there was no apparent distinction of sex.

The treatment adopted was I am certain almost entirely accidental, though I had some reason before the close of my experience to feel that I had selected it more wisely than I knew. The relief of the patient's misery was compulsory, and in each severe case I resorted to very moderate doses of morphine, which in a number of instances did not require to be even repeated. A full

* Read before the Ontario Medical Association.

dose of calomel and a saline, followed by sodium salicylate in three- to five-grain doses every few hours for four or five days or a week, and then a tonic, with strict injunctions against overexercise or overfeeding, constituted all there was of the treatment pursued. One of my patients, a Mrs. G——, a young vigorous woman in whom the nausea was most intense, with two or three slight hæmorrhages from the stomach, made so good a recovery that she had been dismissed with the usual warning. A fortnight later she visited some friends twenty miles away, ate a hearty dinner, and again became ill. She was seen by one of the most able physicians in the county, who diagnosed ulcer of the stomach, which, whether true or not, resulted in her very rapid death in a condition of coma. I was certain then, and am still, that hers was one of the cases I have been describing, and that the very strangeness of it was what had deceived one of the most careful and conscientious men in the profession.

It was during the second year that an entire family, with the exception of one, was attacked—all within a few days. During the third or fourth day of her illness the eldest daughter, a healthy girl of about seventeen years, passed into a raving delirium, and very rapidly died in a profound coma. Two days later a younger brother passed through the same conditions and met the same fate. The day following it fell to my lot to take charge of the mother and the remaining children. Owing to the savage relations that still exist in the profession, and will perhaps forever, I had to see them alone, and so could learn but little of the clinical history of those that were dead; but the living were each an exact counterpart of what I had already seen in other homes, and I was permitted the enjoyment of seeing them all recover. I have no way of knowing that my treatment had much to do with the happy results, nor that I could have aided by the suggestion of the same means in saving those that were lost.

All the cases of which I have spoken, except three, occurred within a radius of two miles, and it will be observed how very closely my description conforms to that given of the "milk-sickness" of the Middle and Southwestern States of fifty years ago, and of which so very little is now, and apparently was even then, known, when it was such a source of terror to the early settlers of those districts. The season of the year, the lassitude, nausea, inactivity of the bowels, absence of fever, flabby, furred tongue, abhorrence of food, and the profound coma, all make the two conditions almost absolutely identical. In one single case I found a profuse vomiting of that deep indigo water described by Beach in his article on the milk-sickness, read before the American Medical Association in 1883.

It is a matter for real scientific regret that so little that is authentic has been written regarding the clinical history of this strange disease, which still presents itself occasionally in some scattered districts through the Southwestern States. But what is known seems to positively establish the fact that the disease comes to the human race through the medium of the cow and all her products, and that its original source is somewhere in the herbage or atmosphere of the wooded lands of wild or uncultivated districts. But in my own experience I took every precaution to satisfy myself that the two diseases were entirely distinct. One of the most severe of my cases was that of a man about thirty-five, living quite alone, and who used neither milk, butter, or beef in any form, and drank only from his own well, the best in a circuit of several miles. His father, a half-mile away, and in whose home the disease broke out, insisted that the poison was in the well, and for months had gone to the soft-water cistern for a drink; but he too, an old man of sixty-five, passed through an attack of the peculiar illness.

I should add in passing that six years later, in the same district, a father and one of his sons were attacked so strangely and died so suddenly that a coroner's inquest was demanded. The very skilful physician, who knew most of these cases, writes me that the symptoms were apparently those that I had experienced years before, that four members of the family were attacked, two of the four recovering, and that the mystery of their illness is still unsolved.

And so I leave it. What it was and whence it came, and whether by a bacterium or by a spore or parasite of any kind, and how it entered the system, I leave unanswered, along

with the simple statement that to me the disease itself is still unnamed.

***

No one subject has received such consideration from the profession during the few years just past as that of the relation existing between appendicitis and peritonitis. The thousands and tens of thousands of the laity who have been taught the nonsense that the appendix itself is the bungling, wide-open remnant of some other stage in our development, and are living a life of constant terror regarding grape-stones and apple-pips, show how universal the interest in this question has become. Having in my earlier years seen so much of peritonitis treated and cured without the assistance of the surgeon, and in my later years so often listened to the statement that peritonitis was appendicitis and operative treatment the only proper remedy, I ventured two years since to address the little local society of which I happened to be president in part as follows:

When Doctor Roswell Park, a few nights ago, had concluded the reading of his remarkable paper on Peritonitis to a large gathering of physicians and surgeons at the Wayne County Medical Society, and was receiving the hearty eulogies of his *confrères*, it was then that a distinguished surgeon made the congratulatory declaration that "surgery had made such rapid strides in the field of investigation that we now knew that the man who had made a diagnosis of idiopathic peritonitis had made an idiotic diagnosis."

So crisp an aphorism (if true) deserves an eternal abiding place in the annals of surgery, and if not true should be banished as speedily as possible from the literature of human misery. So strong a reflection on the wisdom and records of our professional ancestors deserves, at least, to not go unchallenged, and I humbly submit that the proofs of these very wide premises are yet a long way from complete. That in the olden days, and in the days not yet very old, the causation of many of the forms of peritonitis was terribly misunderstood must, of course, be conceded, but I have proofs enough to convince me that the modern pathologist who believes he has already put his finger on all the causes of this deadly disease may some of these days still find a surprise in store for him.

In the strictest application of the term there may really be no idiopathic peritonitis, and, in a very strict use of the term, perhaps no idiopathic anything; but that there are causes of peritonitic inflammation not yet named by Doctor Park, or any of his coadjutors (in so far as I know), I believe I am absolutely confident of.

The youth who lies down warm on the ice or damp ground, and has a peritonitis the day following, is said to have rheumatism of the peritoneum, though one of the most distinguished authors of our time declares he has never seen such a case and gives not a hint that anti-rheumatic treatment would save the boy. Doctor Park doubts, too, if this variety of the disease does exist, or the malarial type as purely malarial, and asks us to believe that aside from scurvy and Bright's disease, and purely consecutive or perforative or traumatic, all other cases of peritonitis found are always the result of an infection, and that infection by way of the appendix. This of course without regard to malignant or tubercular or latent peritonitis, none of which can have any special part in the discussion of this question.

With all the distinguished essayist's conclusions thus far I have no desire to strongly differ, except to suggest that we must accept the so-called rheumatic type under some better appellation, or dissent from any plan of accounting for it by the term "infection." The streptococcus and staphylococcus cannot have any causative part in such a case as this, and it is overmuch to ask without absolute proof that we accept colon infection as the responsible source. But, admitting that *all* ordinary cases of peritonitis are infectious and none of them idiopathic, Doctor Park asks us to accept with him the theory, when he has excluded the streptococcus and staphylococcus forms, that all others, or nearly all others, proceed from the appendix and are pure cases of bacillus coli infection. That a fæcal mass in passing *may* irritate the tender lymphoid margin of any appendix, thus closing or partially closing it by tumefaction, and that in the secretions thus retained or partially retained an intense, poisonous, bacillary commotion and multiplication at once commences, rapidly producing inflammation, strangulation, necrosis, perforation, and infection and inflammation of perhaps the entire peritoneum, and that the potent and deadly agent in it all is the benign bacillus coli communis, whose true function in the economy is connected with the assimilation of the food we eat—this is the theory of Doctor Park and those who believe with him that the problem has been solved. The records of recent surgery, the annals of the dead-house, and the experience of every careful practitioner, all do seem to point strongly to the appendix as the pathway by which the infection approaches the sensitive peritoneum; but a theory like this makes life a frightfully perilous journey to anticipate, if we all are going about with every element of so deadly a disease at so near the exploding point. But if all this be true—and after all it may be—what shall we say of the manner of selecting its victims? Those in the very vigor of life, with all its functions at their best, are well-nigh always chosen, and the constipation and indigestion and indiscretions and decay of later years bring apparent immunity. And finally, if such a theory as this be the true one, what shall the answer be to a statement of the facts which follow?

In the winter of 1886, near the village of Morpeth, a strong, robust man named Wilson was suddenly stricken with a violent attack of peritonitis and was dead on the third day. His was the first case of an outbreak that continued for a couple of months, including about thirty cases, all within a radius of four or five miles, in one of the healthiest non-malarial districts in America. Shortly after Wilson's death his comrade, who had been with him for some time in the same employment, was attacked and was dead almost as suddenly as his friend. The mortality of this deadly visitation was very great, reaching so far as I know perhaps forty-five per cent., and including eleven men from seventeen to thirty-five years of age. The records of this epidemic are too incomplete, because of the death of the physician in whose hands nearly all of these cases occurred and because of the lesser interest that prevailed in reference to peritonitis and appendicitis even eight years ago. In only one case, that of the man Wilson, was a post-mortem made, and the inflamed appendix with some foreign body in it seemed, perhaps, sufficient to account for the disease that caused his death. But the long line of deadly cases that followed in such quick succession soon dissipated this mistaken theory. I had the opportunity of seeing one of the last of these cases, and found it one of the most violent attacks of general peritonitis, coming on suddenly in perfect health, with much pain and tenderness of the entire abdomen, rapidly assuming a most intense tympanitic form and not reaching convalescence for about fourteen days. There was in this case, as in others, considerable epistaxis. Doctor John Stalker, one of the most careful observers I know, writes me that he saw a number of these patients and failed to satisfy himself that the inroad of the virus had been by way of the appendix, and that the suddenness of the transition from perfect health to extreme danger seemed too rapid to admit of the theory, of which he is a strong disciple.

In all of the fatal cases, so far as I can now learn, the course of the disease was very rapid, sometimes not continuing past the second day. As to the question of its epidemic character I may only add that the number of cases occurring in this small district within sixty days was very much greater than all that have happened in the eight years since, and that the condition of the entire community was for a time one of extreme panic.

A year later a similar outbreak occurred in the county of Essex, forty miles away, and which seems to have been absolutely identical with that already described. Dr. Dewar, who saw much of this attack and was so impressed with its unusual importance as to report it in the *Canada Lancet*, writes me that he attended eight cases within one month, all in a small area of country; that in every case there was nose-bleed, that the onset in all was sudden and severe, that the fatal cases lasted not more than four days, and that fifty per cent. of his patients died.

I regret that I can tell you so little of the pathology of such a profoundly interesting series of cases, but a consideration of the few facts we are in possession of is quite sufficient to satisfy me of some outside source of infection, and quite enough to make a doubt as to whether some wandering germ may not be the origin of many an isolated peritonitis, and whether the gentle colon bacillus may not after all be the harmless agent of real utility it was intended to be, this crime of manslaughter being often laid to its charge because of its presence on the devastated premises.

These are the utterances I ventured to make on this subject three years ago. Since then I have seen the question asked, Why the enormous disparity between the number of cases of appendicitis in New Orleans and other large cities? It would seem a poor answer to make to the physician who asked it to say that he and his *confrères* had failed to recognize so deadly a disease, and it would hardly be a better reply to my recital of these epidemics to say that they must all have been typhoid fever, because there was nose-bleed. The absence of every other typhoid symptom, the absence of anything like a normal case of that disease, the plunge from normal health to raging fever, the violence of the pain and the suddenness of its onset, ought to be proof enough that no such mistake had been made. And so I confess I find cause enough to wonder whether the physiologist who remarked years ago the close resemblance between the glandular structure of the tonsil and the appendix was not after all groping after a real fact of importance. Neither the tonsil or the spleen is absolutely essential to our existence, and both are about as little uniform in construction as is the appendix; one and perhaps both are apparently the landing-places of deadly infections. The thyroid gland and suprarenal capsule both have essentially vital functions, and an atom of one will control the life and figure and mind of its possessor. Evidences enough are at hand of the activity of the secreting functions of the appendix, and why, after all the oft told tales of its utter uselessness, may it not have a duty in the economy and be the welcome home of some unknown germ of destruction? And why, let me say in conclusion, may not this physiological dream be one way to account for this other, to me unnamed, disease.

Windsor, Ontario.

EPILEPSY TREATED WITH LARGE DOSES OF HORSE-NETTLE.

BY C. B. STOCKWELL, M.D.

C. E. S——, when three years and three months old, without any warning or any irritation from fright or fever, suffered from an epileptic seizure. This took the form of *grand mal*, lasting about two minutes. This boy was above the average, mentally and physically. The parents are not markedly nervous in temperament; have in fact been in good physical condition for several years; have no history of epilepsy or insanity among their ancestors on either side.

About ten days after the first seizure a second occurred, followed by one or two more during the first month. In the second month the paroxysms were more frequent. In the third they had increased to six or seven (on an average) daily, and now took the form of *petit mal*. At the end of the third month the boy was brought to me for examination, but I could find no evidence of any irritation of the genito-urinary or intestinal tracts, nor any history of traumatism about the head. The following was ordered morning and evening:

Bromide of ammonium, 4 grains.
Analgesin, 1 grain.
Fowler's solution, ½ minim.

After six weeks, as the seizures had increased rather than diminished in number, the amount of analgesin was increased to two grains, morning and evening. Two weeks later, the paroxysms still having multiplied, although of less force for the most part, I advanced the dose of bromide of ammonium to 4½ grains and the analgesin to three grains. Six weeks later the dose of bromide of ammonium had been increased to six grains morning and evening, the dose of analgesin remaining at three grains, and the Fowler's solution at one-half minim. At this time the paroxysms had reached twenty-five to thirty in number each day.

One week later, at my request, the child was taken to Doctor J. E. Emerson of Detroit, who witnessed two seizures, which lasted not more than two seconds. He could find no cause therefor, and could not give a favorable prognosis. Morning and evening doses of the following was advised:

Bromide of sodium, 3-10 grain.
Iodide of sodium. 3-10 grain.
Analgesin, 1-3 grain.
Fluid extract horse-nettle, 10 to 30 minims.

Beginning with the minimum dose the maximum was reached within two weeks. As no marked effect had been produced, I decided to try the fluid extract of horse-nettle alone,—this eight months after the first attack. I began with a fluid extract of the berries and root, fifteen minims three times a day, with orders to increase the dose each day until its action should become evident. In comparing the bulletins of three prominent manufacturers of this drug I found the minimum dose given was two minims, and the maximum sixty minims,—these, supposedly, adult doses.

One month later—the ninth in the course of the disease—Parke, Davis & Co.'s fluid extract of berries alone was used for a few weeks, during which the former preparation of the berries and roots could not be procured. The dosage had been gradually pushed till in the tenth month one ounce of the preparation was being given three times daily, and the number of seizures had fallen to about ten to twelve per day. About this time, also, owing to an inability to get any preparation of the drug for two or three days, none was given and the number of daily seizures increased again to twenty-five or thirty.

During the eleventh and twelfth months there were days when but six seizures occurred. Up to the thirteenth month the dose of the horse-nettle had not been pushed beyond ten drachms owing to the fear that the supply, which was obtained with difficulty, would be exhausted. At the beginning of this month a supply of the berries and root was again secured, and immediately prescribed in doses of twelve drachms four times daily—this was on April 3d, 1896. Thus far the drug had had a bracing effect upon the patient; his condition had improved in every way with the increased dose.

For a history of the case for the next two or three weeks I am more or less indebted to the father, who kept a record of the child's condition:

On April 4th there was a cessation of spasms, but the boy acted logy; was un-

steady like an intoxicated person and complained of pain in the muscles of the thighs and legs; was unable to stand or walk without pain. This was probably due to the toxic effect of the drug and perhaps also to the alcohol, the amount of which in this preparation is about sixty to sixty-five per cent.

April 5th the patient was unable to stand or walk; was cross and sleepy. The evening dose was now omitted, owing to disturbance of the stomach. Six spasms had occurred during the day and a few in the evening.

April 6th the dose was reduced to one ounce three times per day, and because of pain in the muscles three grains of analgesin was given with each dose of horse-nettle. No paroxysms occurred on that day and the pains disappeared. The twitching of the muscles all over the body, which had been noticed in the course of the disease during sleep, now disappeared.

April 7th six doses (four drachms each) of the nettle and three grains each of the analgesin were given. No attacks occurred during this day.

On April 8th and 9th the nettle and analgesin were continued as on the 7th. No seizures.

April 10th, one ounce of the nettle and three grains of analgesin were again given three times a day. No paroxysms.

April 11th: No change was made in the dose. No paroxysms occurred, but the patient suffered from marked constipation.

April 12th, about 4 A.M., he had three spasms while asleep, as had occurred on other days when he had suffered from a number of attacks. An action of the bowels having been secured, no further spasms occurred during the day. Dose unchanged.

April 13th, one spasm occurred about 7 A.M during sleep. Laxative again given. No paroxysms during the day.

April 14th, one spasm occurred just before waking in the morning.

On April 15th, 16th, and 17th no spasms occurred. Dose of the nettle was reduced to five drachms on the 17th.

April 18th, no spasms.

April 19th, one spasm at 11.30 A.M. Dose of horse-nettle increased to six drachms and of the analgesin to four grains.

April 20th, two spasms occurred, one of the *grand mal* type.

Paroxysms occurred thereafter every day or two until the middle of May. The analgesin was omitted as part of the treatment about May 1st.

As the fluid extract of the berries and root of the horse-nettle had proved more satisfactory than the fluid extract of the berries alone, it was thought best to try a fluid extract of the roots alone. By request, Parke, Davis & Co. prepared a quantity of this extract for trial in this case, and it proved more satisfactory than the other extracts. It was well borne by the stomach and seemed to have a more specific effect in preventing the epileptic seizures. It was first administered in doses of one ounce three times a day. Almost no paroxysms occurred after this, and they ceased entirely after June 1st. The dose was gradually diminished until about the 1st of September, when medication was discontinued.

Thirteen months has now passed with no recurrence of the malady. The boy is as bright as ever and is in excellent health. It is an interesting fact that the dosage in this boy of between three and four years was pushed beyond the maximum adult dose then mentioned in any drug bulletin, viz., sixty minims, to a maximum dose of 720 minims!

At the present time Parke, Davis & Co. have the following directions printed upon the labels for their preparation of the fluid extract of the horse-nettle root: "Dose—One-half drachm, and increase according to constitutional effect desired."

As the taste of the nettle preparations is disagreeable each dose was followed by a draught of root-beer.

I have recently learned that Parke, Davis & Co.'s fluid extract of the berries contains about seventy per cent. alcohol; their fluid extract of the root only about fifty per cent. The amount of alcohol probably accounts for the fact that the preparation which contained the least—the fluid extract of the root—was better borne and more efficient than either of the other two, and that the one which had the most—the fluid extract of the berries—was the least satisfactory.

Port Huron, Mich.

FATTY ILLS AND THEIR MASQUERADES.

(VI.)

BY EPHRAIM CUTTER, M.D., LL.D.

Heat is a form of motion which has been long universally used as a remedy, simply because it has been found to be immediately good. It is easy to see its applicability to the treatment of fatty ills. None would think of such a thing as applying cold to a part whose vitality is diminished, and whose circulation is retarded and impeded; nor of allowing the body of a fatty-ill patient to remain cold, because the latter aggravates the causes of such ills. Nor should the application of sweltering heat be employed, because of its nerve depression, such as is seen in sunstroke. These statements are truisms; but it seems that, when we have systemic loss of motion, the imponderable, colorless, invisible yet measurable form of motion which we term heat should be mentioned among the other means for restoring normal biological motion.

It has been said that "Heat is life and cold is death," and the Thompsonian system of medicine was founded on this principle, and patients treated with natural and artificial heat. Capsicum was greatly employed because it is "so heating," meaning that it confers motion and emotion (pain); but this principle being applied where there was no dynamic potential force, it entailed useless suffering. Fatty ills require more force to be added, not removed.

Air should be fresh and pure, for hygiene has its place in the management of fatty maladies. Living-rooms should be well ventilated, and warm, but not hot. Mountain and sea air often quicken the circulations, redden the cheeks, and confer a peculiar sense of refreshment to the whole body, and the millions of dollars spent each summer and winter in ocean travel, hotels, sanitaria, yachts, and steamships testify to the value set upon fresh, pure air. Would that the like estimate were set upon good air at home! Too often the ill are deprived of it for fear of taking cold, or as if it cost a dollar per cubic yard! In the sluggish and impeded circulations and functions of the fatty ill, there is no danger of taking cold by ventilation with proper management. Suppose extreme cases sick in bed: With such I have been in the habit, in city or rural districts, summer or winter, night or day, rain or shine, of ventilating and affording great relief by throwing a light shawl over the patient's head; by opening every door and window wide; by letting the air be changed in one or two minutes; and then, closing the doors and windows, uncovering the face. This process can be repeated at will, and it does not chill the room walls. The airing can be accelerated by half-opening a door and swinging to and fro from right to left in moderate time, when there is no wind and when there is a damp, stagnant condition of the atmosphere, and the air does not seem to move, especially from the cul-de-sacs and corners of the room. Beds should be thoroughly aired through the day, and made up at night, if the patient is up during the day. Day clothing can be aired at night, and night clothing aired in the daytime. The refreshment found in thoroughly aired clothing is such as is felt on changing a soiled shirt for a clean one, and is material.

This leads me to speak of the hygiene of the skin. The skin is a sewer twenty-five miles long, if, as there is reason to believe, the corkscrew ducts of the sweat glands are correctly estimated to be of this great length! What with sweat, fat, scaly epithelia, foreign substances, as dirt (and the morphology of clothing and air), the skin becomes clogged and does not perform its functions, which are more or less vicarious of the functions of the internal organs. When the skin is kept clean by baths and well ventilated clothing, the system runs with less friction. Every one doubtless has noticed a much better feeling after a bath when tired, worn, and in need of ablution! Strength is conferred by thus saving it. The fatty ill need this more than the well, because the skin has more to do on account of the weakness of the kidneys; for them warm baths are better than cold, which may harm fattily degenerated tissues by shock. When cold baths are not followed by a healthy reaction they should be avoided. I will here relate a curious case of small kidneys unable to be sufficiently vicarious with the skin:

A child at the age of six years almost died from scarlet fever. In her girlhood she lived much out-of-doors like boys, and her ruddy face looked as if she were the incarnation of

health; her laugh was so hearty that some said they would go miles to hear it; yet she had a great antipathy to baths of any kind, even salt water seaside baths. In my mind's eye I can see her as she appeared on one occasion at Swampscott beach, refusing to bathe with the family, and how her mother and aunt on either side forced her to the water and put her in despite her loud screams, tears, and entreaties. Her distress was so great that her bath was given up! The same thing occurred at home with ordinary baths. Sponge-baths she could take. This unusual antipathy was an engima until she died at the age of thirty-two. Her death, as shown by autopsy, was from cerebral hæmorrhage filling the right ventricle, causing hemiplegia of the left side of the body. Her memory was not lost. There were fatty heart, fatty liver, with fatty tumors embedded in the hepatic substance; fatty kidneys, which were of the size of those of a six years' child! It appeared that the kidneys were arrested in their development by the scarlet fever, so that the skin was too large for the kidneys. When the functions of the skin were interfered with, by a cold sea bath for example, the blood was thrown in upon the too small kidneys, which caused so much reflex trouble that the above distress was manifested and accounted for. But for this she might have sooner died. At any rate, if this explanation be thought unsatisfactory her case certainly proved the vital value of fresh, pure, outdoor air as a gaseous food.

In 1888 while visiting at a stock farm outside Louisville, Kentucky, my son, Doctor John A. Cutter, was consulted by a lady who for fifteen years had suffered from intolerable itching after bathing. She was the mother of several children; had nearly died several times from post-partum hæmorrhage; her water was deeply loaded with bile; under the microscope crystals of cholesterine were found in the urine and blood. He put her upon absolute beef diet for a month, and then a more elastic diet was allowed; the urine cleared up, the symptoms of itching were controlled. Several years afterwards she wrote him that she had been in good condition and comfort. This was a case of fatty liver and fatty womb.

Ammonia sponge baths—that is, two or more teaspoonfuls of aqua ammonia, according to strength, to one quart of warm water—are excellent, night and morning or both, in cases of fatty ills. It is only necessary to squeeze the sponge so it will not drip, rub over one part of the body, and wipe dry; next another part of the body; and so on until the whole surface is gone over. The glow and tingle which usually follow prove that the circulation in the skin has been quickened, and thus internal congestion may be removed.

Turkish baths are well borne by some, but I think are not so good as the ammonia sponge-baths in these cases. Indeed, I was once called to a man who was supposed to be dying in a Turkish bath. His heart was fatty and had almost ceased to beat because of the shock of the bath; this leads me to say that hot tub-baths are agents of great biological power. The following cases prove this:

A stout, healthy looking farmer suffered agonies from what appeared to be passage of a calculus through the ureter; was not relieved by opium and anæsthetics; but when submerged in a hot-water bath in less than three minutes he was relaxed and the agony relieved. The calculus was voided later.

Another was a middle-aged woman with similar symptoms, to whom I was called in consultation. The attending physician had wisely exhausted the resources of drugs, and was willing to use the very hot bath as above. Immediate relief followed the relaxation thus induced. It has seemed to me that the fibrous structure was so relaxed by the hot water that its normal caliber of one-eighth inch allowed the passage of a stone one-quarter inch in diameter; or that the urethra was so softened as to give way under the tremendous pressure exerted by the combined epithelia of the kidney, whose protoplasm kept pumping urine into a pelvis blocked by the calculus in the ureter. If this seems an unwarranted deduction, I refer to the celebrated squash experiment of the late President Clarke of Massachusetts Agricultural College, in which some seventeen hundred pounds were lifted by the protoplasmic force of the growing cells! Also to the fact that I saw at Sonoma, California, in 1871, a champagne bottle whose neck had been squarely cut off by the inside pressure exerted by the proto-

plasm of the yeast cells producing carbonic acid gas and alcohol—a dead lift, it was said, of one hundred and twenty-five pounds to the square inch. Again, my father and I examined the corpse of a child two years old, dead of an obscure trouble in the abdomen. The walls of the urinary bladder were three-fourths of an inch thick, concentrically and wholly hypertrophied. Leading from the fundus of the bladder were two membranous tubes, of the same size and appearance as the small intestines over which they ran; they led to the kidneys, which were also greatly dilated, and proved to be the ureters expanded to this enormous size through the resistance proffered by the increased thickness of the bladder-walls and the consequent longer valvular passage through those walls. It is not improbable that the ureters were fattily degenerated, and it is a matter of regret I did not ascertain if they were so. The point is established, I think, that ureters can be dilated by intranephritic secretory protoplasmic epithelial pressure. Indeed, is not this same protoplasmic pressure shown in the enormous enlargement of the sebaceous follicles of the scalp (when they grow as large as hens' eggs) filled with cholesterine?

Water-baths should be used with judgment, not as cure-alls but as useful hygienic measures, to go along with other means employed to quicken the circulation and functions of cell life in cases of fatty ills.

Electrical baths are useful, for they pass a current through the body systemic which is ill with impeded and slowed functions; not only this, but metals and reagents are now proved to pass through the body from one pole to another with electrical currents. When I was a medical student I met a man who showed his apparatus for electrical baths, and said he accomplished this transfer, but J. P. Cooke, my private chemical preceptor, did not believe it possible. I thought it might be so, but yielded to the superior knowledge of my teacher. Forty years later this was brought out as a new discovery in the proceedings of the American Electro-Therapeutic Association. I, however, give the credit to my first informant.

Dress should be comfortably warm, since a chilled body means more resistance to the functions and circulations of the fatty ill, and means more *dynamis* needful to run it. But we aim to need less force to run the body, and more left to cure with. It is work to live. It is work to run a normally warm body with its one hundred thousand miles of circulation! It is more work to run this cold than warm. This difference may be all the difference needed for cure; hence dress warmly.

Also dress loosely. I have hinted at the effect of ligatures and tight environments in producing fatty ills, and at the saving of force secured by having the body resting free from all girths and weights that compress and weigh down the trunk and limbs; and I would reimpress the need of loose garments for the fatty ill. When I see a fat middle-aged lady girt with corsets so tightly that her waist is smooth and shining; that her breasts heave and palpitate with upper thoracic respiration, when she should breathe by the diaphragm and abdominal muscles; when her eyes protrude from pressure behind them, I think of a beetle in a vise trying to be an ant; of how the lady is, at the behests of fashion, only laying herself down as a sacrifice to fatty degeneration; that if there were a law — municipal, State, or national — thus to squeeze women by corsets, there would be a rebellion at once! Yet this invitation for fatty-ill immolation has been accepted by women for ages. I have volumes bound in parchment, of German inaugural medical theses, read and printed beautifully in the Latin language nearly two hundred years ago, in which one young candidate for medical honors bewails the fact that the ladies of his time would persist in wearing corsets no matter how much medical men opposed! I repeat this wail. While a few women are wise enough to abjure corsets, the vast majority do not, and they can moreover point to female physicians who endorse them, and some male ones also who have made themselves millionaires and society leaders by manufacturing and selling such goods.*

Professor Louis A. Sayre has done the world vast benefit by showing the good of plaster corsets for supporting diseased spines, but he always places a temporary bag over

*Since this was written I have met the statement that women wore corsets 2000 years B. C.!

the epigastrium so as to leave room for the normal expansion of lungs and stomach.

In my medical pupilage I saw taken from the body of a tight-lacing woman a fatty liver in which were left the marks of the supra-posed ribs, so deep as to leave permanent furrows with high ridges between. I asked the professor who exhibited it, "How could she have lived?" He replied, "The Lord only knows!"

Men advancing in age suffer,—I speak from experience. Tailors insist on a tight waistband to trousers; and when this is combined with a long, starched shirt-bosom there is a condition which is described in Acts* "where two seas meet." This meeting is over the pit of the stomach, where is located the solar plexus of nerves, called by the ancients "the abdominal brain," and it is a most sensitive spot. The result is that shirt-bosom and vest climb upwards and irritate the man, who naturally tends to fatty ills. His life is made uncomfortable by this arrangement, which invites these fatty ills. In the ordinary suspender the attachment to the waist is so made that the parts between the suspensions are drawn together; accordingly a properly measured waistband will become tight between the front and back when worn. This I have relieved somewhat by a permanent wire stretcher sewed in where the wrinkles come. If some one would invent suspenders that avoid this difficulty I am sure old men would be much easier to get on with, and they would live longer. Cannot we have it the fashion to wear loose garments that shall not impede the circulation and functions of the human body as we grow older?

Another principle of the treatment of fatty ills is to strengthen the heart. Granting that one cause of fatty ills is an impeded and sluggish circulation, it is plain that as the heart is the great kinetic moving power of the circulation, to strengthen it is an indication special in its treatment. This can be done in two ways: By a special direct addition to the heart kinetic energy, and: By diminishing the heart labor. The importance of this idea is so great as to excuse a repetition of matters mentioned under other heads. Many good things in life are repetitions; for example, the beats of the heart, movements of respiration, eating, cooking, the love of home, friends, and country.

Kinetic force may be given to a weak heart by feeding, and here beef stands in the fore-front; mutton next; game; codfish; poultry; shell-fish, as oysters, clams, lobsters; and other animal food—all of course properly cooked. The vegetable foods in their order of excellence are wheat, rye, barley, potatoes, tapioca, sago, string-beans, celery, apples, and prunes; vegetable food should not be eaten in a proportion of over one part by bulk to two parts of animal food. Of liquid foods, milk should be used sparingly, because of its fat. Coffee is thought by some to injure the heart, but more likely it stimulates a weak heart; still it is not a tonic like food. The best authority I know of on this subject claims that coffee in moderate amounts does not injure the heart, provided that the other foods are used as indicated above. I think that coffee needs watching, and that it should be used without sugar, which does not strengthen the circulation, but often clogs the liver and thus increases the heart work. Hot water directly strengthens, as has been shown before.

Medicines, such as the pyrophosphate of iron, tartrate of iron and potassa, strychnine and its preparations (I like the sulphate, $\frac{1}{40}$ to $\frac{1}{20}$ of a grain at one dose), digitalin ($\frac{1}{60}$ grain); salicin and other like drugs must be looked upon as tonics for the heart.

A weak heart may also be strengthened by diminishing its work in the following ways: By posture—to wit, in bed in the prone or supine position, where the circulation through 100,000 miles of capillaries is made easier, because there is no head of blood to pump against: By postures that elevate the feet, thighs, and legs, or depress the head.* Per-

*Acts xxvii, 41.

*The writer has invented a chair on the principle of Professor L. A. Sayre's triple inclined plane, in which the head can be smoothly lowered almost to the floor, and the lower limbs correspondingly elevated; or the trunk may rest as if in a chair arranged like the letter V with an angle of 45°, the head being at the top of one arm of the V and the feet at the top of the other arm of the V; or, as the chair has joints corresponding to the hip- and knee-joints, the legs may in this V-position be

haps the relief given to the heart by position with this device may best be told by the relation of a case of hypertrophy and valvular lesion, where the fatty-ill patient had been for weeks unable to lie in bed more than half an hour at night because of dyspnœa. He was a man of sixty years of age; heart impulse felt over a larger area than normal; cardiac dulness on percussion increased in area; mitral regurgitation, orthopnœa, lower limbs swelled by the gravitation of dropsical fluid in the areolar tissues; anxious and distressed looks; irregular pulse. He was placed in the chair in question so that very gradually and carefully his body assumed the V-position. The strain on the heart was so removed that after two days' sojourn in the chair—now resting on thighs, then resting on thighs and back; now resting on back, thighs, and legs, changing the position himself by the aid of the endless screw—he was able to lie in bed and sleep all through the night! For the rest of his life he slept in his bed. Had I then known of the relation of food to heart disease and fatty degeneration I think he would have had a good chance for recovery, because he so quickly responded to the strengthening of the heart by mechanically lessening its work. When hearts have shown signs of giving out, and I would have given diffusible stimulants, as Hoffman's anodyne, alcohol, or hot water, the relief afforded by the above device has answered just as well, if not better, since medicines are not an unmixed benefit.

It likewise diminishes the heart work to remove paralyzing gases from the alimentary canal; when the gases leave the partial paralysis ceases and the load is removed from the heart. To refer again to that hour of the night which proves so fatal to cases of heart disease, to wit, about 3 A.M., when the gases have accumulated during sleep so as to be fatal, because the paralysis was too much for the heart to carry: It is wonderful what simple means may be used to relieve this grave complication, one of which is the "laying on of hands" of the patient, or better the hands of some one else.* Another means is to apply heat inside the stomach by drinking hot water; it is remarkable how quickly the distended stomach will contract and deliver the gas through the œsophagus. Probably many of those dying from a fatty heart would have been saved by the free use of hot water combined or not with ginger or other aromatics.—Cold water drank by some will eructate gas. Another way is to apply dry heat outside, which is better than wet heat. I like bags of dry, hot maize meal, for it is light, fragrant, and retains heat for a long time. Some use hot salt. Hops and aromatics are good additions, but I think it is the heat that belches the wind. To show how hard it is to make this understood and practically useful to poor frail human nature, let me refer to a physician who was subject to heart disease: He intelligently dieted therefor, but at times he would "spree" on carbohydrate food.—He knew better, but he did it just the same; it was heart *versus* head, when the desires and feeling overcame wisdom and discretion. The result was that he died at about three o'clock one morning, his heart being overcome by stomachic gases. It was said that even he could have been saved if he had had on hand plenty of hot water to drink to start out the gas, and lessen the heart work.

Another way to strengthen the fatty heart is to have Nature absorb the atheromatous, calcareous, or arterio-sclerotic bodies that

placed horizontally or at right angles to the horizon, or at any angle between. After the position is adjusted, turning an endless screw will throw the body-weight over the whole posterior surface of the body, thus relieving the thighs, which sustain the heat, weight, and burden of the body in ordinary chairs. Cases of angina pectoris, valvular disease of the heart, fatty heart, functional disturbance of the heart, etc., have been at once relieved from pain, from palpitation, and intermittent pulsations with this device, and that too without medicine! President Garfield used this chair on the day before his death.

* It is probable that there are foci of nerve force in different parts of the body. The force may be accumulated in one focus, rather than in another, and the application of the hands may restore the equilibrium and quiet disturbances. I have had an instrument made on this principle for uterine cases. With it I have seen pain in the head relieved, for example, by connecting a flat electrode on the head with one in the vagina touching the uterus. So it may be when the heart is fluttering weakly with paralysis from stomachic gases, the patient may convey force by laying on hands or rubbing.

weaken and diminish the caliber of the coronary arteries, besides causing the arteries to become inelastic tubes in place of elastic ones. When these deposits are removed there is a notable increase in the supply of blood, with better nutrition and easier work for the heart. The way to do this is to apply the principles here laid down, and Nature will as a matter of course remove these abnormal pathological products from any part of the body, provided she has time and proper materials enough.

As the heart is autonomic, and is the seat of passions and feelings, excesses of joy or grief, love or lust, anger or pleasure, sorrow or distress, will use up its force so that it has been known to stop suddenly and never resume its beats. Hence there is another way of strengthening the heart, negatively by the cultivation of calmness and repose, not being overexcited nor depressed; in other words, letting the head run the heart. Indulgences in overexertion physically, as in lifting weights, running up stairs or heights, and loud shouting, are liable to kill instantly those suffering from fatty ills, simply because there is not reserve power enough to stand the shock of the sudden demands made. Some years ago I observed that it required four times as much force to go up stairs as to go on a level at the same rate of speed. I was taken to task for underrating this effort, and a medical man of some experience declared it should have been stated "twenty times."

Suppose a steam-engine is doing good work and this is suddenly increased fourfold (people go up stairs quickly as a rule), what would happen? I asked this question of my brother-in-law, who has a three-hundred-horse-power Corliss engine, and he replied the engine would be smashed. In the light of this statement it is a miracle that people with fatty ills survive as long as they do. When they die we ought to rejoice that they lived as long as they did.

Light is an exquisitely delicate and almost unappreciably rapid mode of motion; without it man would die. It is a biological form of motion indicated in the treatment of fatty ills. Sunlight exerts a powerful influence on the growth of plants and animals; it affects the protoplasm of chlorophyll cells, and the cells of the cheeks and hands of mankind. A large book was once written on blue light as a medicine, and extravagant claims made for it; for example, water kept in a blue vial was claimed to be an excellent purge! I do not know about this, but I do know that it is a sensible thing to treat fatty ills with plenty of sunlight, unless it is too hot; and if people with fatty ills lived continuously out-of-doors I think they might prolong their lives. The heat that comes from sunlight is more refreshing than from other sources; it seems to quicken the circulation better, and that is what we are after. To impress the intense rapidity of vibrations of light let me say that violet rays are said to have three thousand millions vibrations per second, and that it takes seven years to count this sum at six thousand per hour, ten hours per day, and three hundred working days in a year!

While writing this I have a patient with fatty ills who says he gets great benefit from sunlight coming through blue glass. He sits in a box, head outside, and only the side in front admits light through a blue pane of glass. His nude body sweats profusely from the heat. This proves an increased circulation, activity, and motion of the sudorific glands. But light does not take the place of proper feeding.

A late writer states that light would not exist without eyes, or exists only in our eyes. I do not believe this, as I look on a green lawn illuminated by the sunlight. There are blind people, but their blindness does not put out the sun, which would shine if all eyes were extinguished forever.

CASTRATION FOR DEGENERATES.

BY WM. M. DONALD, M.D.

Of all the animal instincts or appetites which pervade the human organism there is—hunger excepted, perhaps—none so strong, so universal, so persistent as the sexual. Nature, whose prodigality is so abounding when the perpetuation of species is concerned, has manifested here once more her determination that "man shall not perish from off the face of the earth." 'Tis true that her energies in the preservation of life are often wasted. Her ways are not our ways, nor her thoughts our thoughts, and since the end desired has been

attained it does not become us to criticize the means.

Now this instinct, which is so strong in the average human animal, is the dominant ruling passion, uncontrolled by any moral or ethical considerations, in the criminal or vicious human animal—I mean not the criminal from an errant impulse, but the *habitual criminal*, the man or woman whose nature it is to do wrong. Lombroso and his school have shown by what appears to be incontrovertible evidence that such a class exists, and can be distinguished by signs more or less distinct. The stigmata of degeneration—as deformities, unequal development of the two halves of the face and cranium, imperfection in development of the external ear or the palate, hare-lip, irregular teeth, etc., etc.—can be detected by any trained eye. These stigmata of degeneration, according to the same observers, may occur in neurotics, in epileptics, or in incompetents, as well as in the criminal classes; which points to the view that all these groups are but subdivisions of a greater group, denominated "Degenerates."

Now if there is any one principle that has a more direct bearing than another upon the formation of character, it is the principle of *heredity*. As Oliver Wendell Holmes has naïvely put it, "The training of a child should commence one hundred years before it is born." The transmission of parental characteristics to progeny is a fact so well known and understood as to demand neither argument nor proof; it has seared itself into the very life of the people, and is accepted without question. It has even manifested itself in proverbs, which is one of the best evidences of its hold upon the masses:

> Like father, like son:
> A chip of the old block:
> What's bred in the bone will appear in the flesh:
> As the tree, so the fruit!

This rule may then in all honesty apply to the classes above mentioned, and it must be expected that neurotics will breed neurotics, incompetents incompetents, and criminals criminals; or, to generalize broadly, degenerates breed degenerates of one type or another.

So, too, sexual passions of a dominating type are sure to perpetuate passions of the same type in succeeding generations. These are not the careful, prudent, frugal classes which aim at limiting their progeny to a point consistent with their incomes, but the improvident and prodigal, those careless of all things except the gratification of passion or impulse.

Now, if the function of the State be the preservation of society, the latter should demand with no uncertain voice that it be protected from a progressive perpetuation of the baleful influences emanating from these pernicious classes.

The penal system now in vogue has shown itself to be valueless as a reform agent; and if Lombroso and his school are right in the contention that crime has (generally speaking) a physical basis, it is not a difficult matter to see the reason why. Nor is it possible to devise any penal system which will be of value as regards habitual criminals; or any system of relief which would be of value to the idiotic or feeble-minded. These are degenerates, lacking the mental and moral impression balance that is the heritage of the normal man, and are consequently impervious to reform influences which would stir the other.

The chief aim of society should be then not so much the punishment of these unfortunates,—though that would seem to have its place,—but rather the prevention of procreation; and there is but one method of obtaining this, viz., *by castration.*

The Legislature of Connecticut in 1895 enacted a law which declares "it is a serious criminal offense for certain classes of degenerates to intermarry or to cohabit." Did it ever occur to the sapient legislators of the Nutmeg State that a degenerate would be the last person in the world to realize that he was a degenerate, or that he should come within the meaning of the act? The purpose of the law was excellent, but the means were wofully awry.

It is not to be inferred from the foregoing that I urge this operation for every person exhibiting (in greater or less degree) physical evidences of degeneracy, inasmuch as that sweeping method would involve a large number of persons having the same rights as the perfectly normal man. But when any individual has shown by indubitable signs that he or she belongs to either of

the classes denominated habitual criminals, feeble-minded, or epileptic, then the operation should be performed at once, and the possibility of the further perpetuation of this type prevented.

Consider, moreover, the deterrent influence castration would have upon the mind of the average criminal who is not an absolute moral wreck. Upon the more advanced types of criminal degenerates, or degenerate criminals, who are absolutely without the aid of any moral balance or restraint, one could not expect any such deterrent influence; but upon the mind and imagination of the degenerate criminal who still retains a modicum of control over his impulses, the fear of punishment would, I am sure, have a most lively influence. Next to his life the man of passion and impulse values his sexual organs.

It may be objected that this is Spartan treatment; but devastating disease always demands such, and the individual must always suffer for the benefit of the many. The tendency in this *fin-de-siècle* age, against which Nordau argues so strenuously, is towards the preservation of the individual, in distinction to the preservation of society as a whole.

Is it not enough that the tubercular, the syphilitic, and the cancerous wrecks are preserved without being asked to preserve the criminal?

The operation of castration is practically harmless, as is evidenced by the frequency with which it is performed on animals,—and on men also. Among animals, where ordinary skill has been exercised, a death or even an untoward result is extremely rare, and among men, while the results may not be deemed so good, this is open to question, inasmuch as the latter are for the most part operated on by reason of disease of the parts, such as cancer or tuberculosis, which are alike progressive and fatal to the organism, and the system is necessarily already weakened by drain induced by the malady long before the knife is resorted to. And yet, even with such disadvantages, the operation if antiseptically conducted is a comparatively safe and simple one. Ovariotomy, or spaying, in the human female is a much more serious and complex matter, yet it has reached such a degree of perfection that the percentage of fatalities in uncomplicated cases is practically *nil*, even though (as with men) undertaken only for relief from disease.

How much more simple then, how much more expeditious, how much more safe, would this procedure be if instituted in cases of perfect *physical* health,—the moral obliquity of the victim would not be a contraindication, for so far as human experience goes such obliquity has no deterrent effect upon the healing of severed or lacerated tissues.

In animals it is almost invariably found that when the individual is the possessor of a violent and quarrelsome disposition castration has a most happy effect, soothing irritability, calming passion, quieting anger. Many a stallion or bull, whose very presence made life dangerous and who would on the slightest provocation use his most passionate efforts to kill and destroy, has by this simple procedure been transformed almost immediately into a quiet, harmless, and useful member of an agricultural community. So well known is this effect that the development of any dangerous phases in the disposition of a previously gentle and unmutilated animal is the signal for sexual undoing. In the female, which never exhibits the same degree of anger or passion as the male, "spaying," or "gelding," is also not infrequently performed to prevent breeding from unsuitable stock. Here also the same effects are noticed as in the male, though naturally to a lesser degree.

One objection raised is the difficulty which would be encountered in securing a competent jury to pass upon the necessary degree of criminality or degeneracy in any individual to demand the punishment or treatment. Such a jury should be made up exclusively of expert criminologists, but with the rapid growth of the science of criminology in all civilized countries this would be obtained, I believe, without any more difficulty than is encountered in securing a jury of peers in any noted murder trial to-day.

Another objection advanced is that it would be a matter of extreme difficulty to secure the services of an expert for the performance of this mutilation, the contention being that the duty of a surgeon is to heal, not to destroy; yet every surgeon at times finds it necessary to sacrifice one or another member or organ in order to save his patient,

and is it not more necessary, and equally honorable, to sacrifice one member of the body in order to secure the greatest benefit to society and posterity? To my mind there would be no difficulty in securing competent operators if the law demanded the operation.

A conservative view of the situation by jurists and criminologists, condemning to this operation at first only undoubted degenerates, and leaving to ordinary legal processes all doubtful cases, would establish confidence in the public mind, and likewise leave the way open to such an extension as experience and study would warrant. Conservatism would necessarily be the key-note of this change, as of all other radical changes, in the present penal system.

But if it be possible to allay enough false sentiment to secure the enactment of a law providing for such a punishment—or rather a cure—the sentimentality that generally obtains to this nineteenth century can be depended upon to prevent any excess or abuse of the law; and fear of abuse of a law should be no reason for opposing its passage. A sentence to imprisonment of extreme severity is occasionally heard of, but that offers no argument in favor of the abolition of imprisonment for crime; so, too, the fear of unnecessary severity in connection with this proposed corrective should not act as a deterrent.

I believe the adoption of this operation would mark a distinct advance in the penal systems now in vogue; I also believe the majority of the world's advanced thinkers already favor this method of correction.

970 Jefferson Ave.,
Detroit, Michigan.

TYPICAL TEXAN (SEPTIC) FEVER.*

BY D. DU PRE, M.D.

I propose to offer merely some reflections drawn from a somewhat extended experience in the study and treatment of the prevailing fevers of Travis and Dallas Counties, in Texas, the like type of which I exceptionally met in Alexandria, Louisiana. It was in connection with a general practise in Rapides Parish, in the latter State, that I was impressed with the importance of the differentiation of fevers in order to formulate successful treatment or prompt arrest. The various forms of malarial fever were the controlling types. Exceptionally there was developed a fever not at all controllable or shortened by the medication indicated as specific in malarial forms, and when attempted, gravitated into chronicity of a very indefinite duration, and yet was not true typhoid nor even a low form of bilious, remittent, or continued malarial fever.

A short and somewhat didactic recital of one case will perhaps better present the conditions which I seek to describe.

Doctor French, of Alexandria, Louisiana, requested me to see with him his son, some twenty-four years of age, who had been under treatment for twenty-nine days. This son had recently returned in impaired health from a surveying expedition near Alexandria, Va., and his father feared a fatal termination. The case was ushered in by rigors, one or more daily, the temperature but little reduced at any hour of the day; tongue was intensely coated, and the buccal and salivary secretions tenacious, of offensive odor and taste; mental incoordination; alvine dejections highly offensive; urine scant, offensive, and colored. Doctor French had conducted the case on the conviction he was dealing with an intense malarial fever,—he was impressed that the regular cold stages pointed unmistakably to a fixed malarial condition, as then interpreted,—and he emphasized the large amount of quinine that had been used. I took the position excluding the malarial condition, and expressed the conviction this young man had a typical *septic fever;* that it mattered not what had been the exciting cause; and I suggested tentative antipyretic and active antiseptic treatment, the latter introduced through every available channel — stomach, rectum, skin; and also by mild yet effective cathartics and repeated aseptic enemas to dislodge all accumulated mephitic contents of the bowels, as well as diuretics to assist active elimination. It took but a few days to establish defervescence and rapidly restore an organic action.

During the two or three years' residence in Austin, not only in my limited work, but from observations I was provided with through the courtesy of others, I found the fevers of

* Read before the Texas State Medical Association.

Travis County established as a rule, what had been exceptional in my Louisiana experience. Fevers in that locality persisting from three to six or more weeks were denominated "typho-malarial," "typhoid," or "slow." I likewise found on moving to Dallas, ten years ago, that the same nomenclature prevailed.

The differentiation which I began to make from the commonly received type of fever some fifteen years ago has continued, and ripened the conviction that in this locality we often have to do with a true septic fever.

First in evidence is the prodrome: Nearly every case has established a history of a general malaise of short or longer duration, coupled with anorexia, headache, constipation (else frequent ineffectual effort to stool with scant fæcal matter, often with sanguinolent mucus putrefactive in its nature), coated tongue, scant highly colored urine, often offensive or perverted taste. All these conditions are intensified by morbid accumulations when the second stage is reached, the patient then being obliged to take to his bed. If a catarrhal condition prevails there is intense cephalalgia (often spinal), to which is often added arthritic and muscular pains, nausea and retchings, more or less tympanites, insomnia, and a temperature varying from 100° to 106° daily.

Now as to the atypical or anomalous condition of the third stage, which I would denominate ataxic and adynamic: The functions are largely in abeyance; there is accelerated pulse and heart's action, and yet, notwithstanding a cool and moist skin, the thermometer will demonstrate a temperature ranging from 100° to 104°; the functions of the stomach and powers of digestion and intestinal assimilation are largely in abeyance; muscular tonicity almost lost, and brain and general nerve powers at extremely low ebb; there is general physical depression and mental *ennui*. All the excretions are greatly lessened; the stomach rebels to such a degree one is forced to rely upon the hypodermatic syringe for medications, and upon the rectal syringe for stimulation, to allay thirst, and for nutrient purposes. I have found it necessary to allow the stomach to rest for days.

The morbid condition of the skin I estimate as most important, as it is almost without function, is intensely pigmentous, and in conditions like those of the general economy.

With the intensity and all-pervading impress of this septic condition one is surprised to find little general disturbance, neurotic, circulatory, etc.; surface temperature, circulation, etc., are often almost normal.

The consensus of opinion is that "slow fever" is a genuine or "atypical typhoid"—it was common to the localities where I have practised for fifteen years past. It is, in my opinion, a typical septic fever, and were I an expert microscopist I would have pursued my investigations farther, to more perfectly demonstrate the truth.

I was made familiar with the clinical course of typhoid fever and its pathological lesions by autopsy, but as no death from septic fever has fallen to my lot, I have made no autopsy; but clinical observation has pointed out a difference as to diagnostic symptoms and in the dejections between typhoid and septic fever. In the latter the tongue rarely assumes the dry, fissured, and red edges, almost invariable in typhoid, and there are no sordes on the teeth; neither is there meteorism, subsultus, or delirium. When the mucous membrane of the bowels is so disturbed that the discharges appear to be characteristic of gastro-enteric fever, I think that they can be differentiated. Typhoid always involves the glands of Peyer and Brunner, and these lesions afford less secretion owing to ulceration than are common to the general mucous membrane involvements in this fever, —the latter consist of débris of glandular disorganization and loss of limited adjacent epithelium; the dejections of septic fever when the bowel reaches the ulcerated stage are more watery, more abundant in mucous secretions and exfoliated membrane, as no doubt the lesions are fewer and of greatly increased surface; the hæmorrhages are less fatal; and the ulcerated surfaces rarely rupture early and suddenly. Again, the physiological activity of the stomach is less suddenly and radically impaired in typhoid.

I am impressed that as soon as this fever enters its third stage, that whatever may be the agency, it has nearly reached its limit of action; that now vegetable and animal putrefaction enter, and deadly ptomaines have come into existence, as evidenced by unap-

propriated ingesta lodged in the primæ viæ and secundæ viæ for days and weeks.

Putrefaction is the laboratory of these ptomaines. They are unharmed in the presence of all germicides, and the boiling of putrefied blood in which they are found does not destroy them,—the surgeon knows of their dangerous presence. It is hard to tell the rôle these animal alkaloids play in the human economy, and to no other source can be referred the vitiated and altered secretions of the third stage.

This fever should never be permitted to reach the danger line. If it is properly differentiated in the first and second stages and its malarial origin excluded it is possible to arrest early and thus avoid the tedious and dangerous chronic stage.

In the *Medical World* for February, 1897, Simmons very ably discusses a form of fever resembling typical typhoid "not at all amenable to anti-malarial treatment," and clearly demonstrated he is in the line of wise differentiation. It was the first discussion pointing to the views entertained by me for many years past. He entered upon the treatment with antiseptics after the Woodbridge method of treatment of typhoid, and added thereto applications of cold water, "when it could be borne," after the teachings of Brandt.

In the *Courier Record* for September, 1895, Simpson-Martin presented an elaborate article in which he sought to establish that the fever under discussion is essentially a genuine typhoid, "modified by habits of life, environment, systemic poisoning by malarial influences, etc.;" but all fevers are subject to these modifying agencies, and in typhoid there is no question of septic complication.

Being called repeatedly in consultation in chronic conditions of this fever, I have had the happiness of witnessing very early improvement by discontinuing antimalarial and antiphlogistic treatment; letting the disease run its course I have never assented to.

The sources of ptomainic and germinal infection are so numerous and universal it is difficult to escape their presence and communication. I do not think that the symptoms and course of this fever were identically the same as fifty years ago, as is the opinion of Doctor Simmons. The simple and common-sense habits of a half-century ago, and the general changed physical condition of our country, growing out of all that is embraced in the term "advanced civilization," have no doubt wrought changes; malarial have given way to germinal agencies.

When the third or chronic stage of the fever is reached, I rely largely upon elimination, by most active stimulation of emunctories—such as mild repeated cathartics and energized action of the skin and kidneys—which is usually followed by rapid and radical improvement.

Both acute and chronic organic disturbances interpose to embarrass and obstruct early abortive treatment; the chief of these being lack of function in liver, spleen, kidneys, and skin, as conditions antecedent to the positive febrile epoch; unless these are corrected in the first stage, the second is apt to prove unmanageable.

One attendant result of organic involvement I would emphasize, viz., the tendency to relapse, which is so frequent I am reminded of the true forms of relapsing fever common to middle Tennessee, with which I had an experience of years; so universal is this that I insist upon the treatment being continued for several days after the patient is discharged, no matter what its duration.

My initial treatment is an emeto-cathartic of calomel and ipecac, and the free use of a hot bath or hot pack daily, or even twice daily if needed; to reduce the pyrexia I also employ a combination of calomel, aloin, hyoscyamus, conium, and podophyllin every two hours until free catharsis is produced. As an antipyretic I find a combination of sodium salicylate, potassium nitrate, and potassium and ammonium bromide efficient, if given every two or three hours until the therapeutic effects are manifested,—this combination is highly and innocuously diaphoretic, diuretic, antiseptic, and refrigerant, hence an assured apyretic. Any visceral neurosis, and such are common, must be relieved. I formerly employed the coal-tar antipyretics, but abandoned them because of depressing effects upon the heart, and now prefer lactophenin and codeine. As an antiseptic I have found hydrogen dioxide of value, also euthymol, both by stomach and rectum, sometimes adding boric acid thereto.

Dallas, Texas.

THE MEDICAL AGE.

A SEMI-MONTHLY REVIEW OF MEDICINE.

—PUBLISHED BY—

GEO. S. DAVIS, Medical Publisher, Box 470.

All communications regarding papers, reports, etc., should be addressed to the Editor of the MEDICAL AGE, P. O. Box 470, Detroit, Mich.

Matters relating to advertising space, etc., to be addressed to the publisher, Geo. S. Davis, Box 470, Detroit, Mich.

The editor cannot engage to return rejected manuscripts or to correspond with the writers thereof, unless such are accompanied by sufficient postage.

DETROIT, MICH., AUGUST 25th, 1897.

Editorial.

COMPARATIVE MYOLOGICAL NOMENCLATURE.

The unsatisfactory condition of myological nomenclature, both comparative and special, has long been a matter of considerable regret. It is well understood that in human anatomy many of the terms in general use are far from being happy in their application or even pertinent in their suggestion; too often they are not sufficiently explicit, and as often not at all germane.

Such an unsatisfactory state of affairs was sure sooner or later to secure a demand for reform. Spasmodic attacks in this direction have been made from time to time, notably by Humphry, Gadow, Hoffmann, Fürbringer, Strauss-Durckheim, and others, but they seem chiefly to have demonstrated the difficulties which attend the realization of such a project. Comparative myology, being founded upon the nomenclature of human anatomy, is full of terms either wholly or largely inapplicable to the lower mammals—terms which relate to the position of a muscle in its relation to the erect posture of man, to its peculiar attachments in him, to its shape, or to its action. And with regard to the extra muscles, which are widely existent among lower mammals, but are not found—or rarely so—in man, these possess a wealth of synonyms which often renders the task of ascertaining precisely what muscle a writer is dealing with one of no small difficulty. As Professor Windle remarks: "The law upon which most schemes of nomenclature have foundered has been a too slavish adherence to a single system."

Fortunately, this gentleman, who is Professor of Anatomy in Mason College, Birmingham, has had the courage to put his shoulder to the wheel in an endeavor to secure a correct nomenclature, in which he has been most ably seconded by Mr. F. G. Parsons, Lecturer on Comparative Anatomy at St. Thomas Hospital; the result is published in a recent number of the *Journal of Comparative Anatomy and Physiology*, in which the names of certain muscles are given with the substitute title, the following being a digest:

For *Rectus capitis anticus ma. et mi.* is suggested *Rectus capitis ventralis ma. et mi.*

For *Rectus capitis posticus major*, substitute *Rectus capitis dorsalis superficialis et medius.*

For *Rectus capitis posticus minor*, substitute *Rectus capitis dorsalis profundus.*

For *Obliquus capitis superior*, substitute *Obliquus capitis.*

For *Obliquus capitis inferior*, substitute *Obliquus colli.*

Digastric should be replaced by *Depressor mandibulæ.*

Replace *Scalenus anticus* by *Scalenus ventralis.*

The *Scaleni medius et posticus* is better expressed by *Scaleni longus et brevis.*

The *Trapezius*, which has also been called *Triangularis scapulæ*, is better subdivided into *Clavo-*, *Acromio-*, and *Dorso-cucullaris.*

Replace *Levator humeri* by *Cephalo-humeral.*

Replace *Levator claviculæ* by *Omo-trachelian.*

The names of the *Rhomboidei* muscles plainly demand division into *Rhomboidus capitis et colli*, *R. thoracis*, and *R. profundus*—this latter to take the place of *Levator scapulæ minor.*

Serratus posticus should be *Serratus dorsalis*, but when it consists of two parts they should be *S. thoracis* and *S. lumbalis* respectively; again *Levator anguli scapulæ* is not so descriptive as *Serratus colli.*

A better name for *Rectus abdominis*, which often extends as far forward as the first rib, is *Rectus ventralis.*

For *Pectoralis quartus*, substitute *Abdomino-humeralis.*

Replace *Biceps cubiti* with *Flexor longus cubiti* and *F. brevis cubiti;* also *Triceps* by *Extensor cubiti.*

Dorsi-epitrochlearis may be substituted by *Latissimo-olecranalis.*

Epitrochleo-anconeus, a very definite little muscle, has likewise been called *Anconeus parvus*, *A. minimus*, *A. internus*, *A. sextus*, and *Epitrochleo-cubitalis*, but the term *Epitrochleo-olecranalis* is far more preferable.

Gluteus maximus, *G. medius*, *G. minimus*, *G. quartus*, and *G. quintus* are better substituted by *Ecto-gluteus*, *Meso-gluteus*, *Ento-gluteus*, *G. ventralis*, and *G. profundus* respectively.

Agitator caudæ is clumsy and not nearly so expressive as *Caudo-femoralis.*

The *Gracilis* is often called *Adductor latus anticruris*, but is highly inapplicable in many cases, hence is suggested the term *Adductor cruris.*

Regarding the *Adductores*, it is doubtful whether if in by far the greater number of mammals it is possible in any accurate manner to homologate the factor of the adductor mass with those of human anatomy, hence is suggested that where there are three of these muscles they should be known respectively as *Adductor anticus*, *A. medius*, and *A. posticus*, the *A. medius* being omitted in the bi-laminar condition.

Quadriceps femoris should be *Quadriceps extensor cruris; Q. rectus femoris* should be *Q. superficialis; Q. crureus* should be *Q. profundus;* and *Q. vastus externus* and *Q. vastus internus* are better replaced by *Q. lateralis* and *Q. mesialis.*

Subcrureus may be substituted by *Tensor capsulæ.*

Sartorius would be better named *Ilio-tibialis.*

The *Biceps femoris* frequently has only one head; when it does justify its name, the two heads are not those of human anatomy, therefore it would be better to term it *Flexor cruris lateralis.*

Bicipiti accessorius has also been termed *Tenuissimus*, which is a better name, inasmuch as it describes its invariable character.

Dobson's alternative names of *Flexor tibialis* and *Flexor fibularis* much more accurately express the nature of the muscles that have heretofore been known as *Flexor longus digitorum* and *Flexor longus hallucis.*

It is to be hoped the good work will continue not only as regards comparative but also human anatomy as well.

KENTUCKY AND OSTEOPATHY.

The Blue Grass State has at last disposed of its osteopathy case. One Axtell, claiming to be a "D.O.," and charged with practising medicine without license, on the 6th of August was fined $50 in one of the courts. The opinion of the presiding justice is so complete and so thoroughly covers the case that we reproduce it *in toto:*

The defendant is charged with "practising medicine" without the authority required by the statute. It is urged by the defendant's counsel that "under the statutes of Kentucky the acts mentioned and complained of in the evidence do not constitute an offense." That no witness has "sworn that Axtell ever practised medicine, ever gave a prescription, or administered a drug, and it appears that he never performed any surgical operation, never used an instrument, never set a fracture, or did anything except to manipulate the limbs and muscles with the hands." The Legislature of Kentucky, in Chapter 85, "intended merely to make a law which would prevent persons from administering drugs or giving prescriptions who did not know anything about them."

The language of the statute is: "It shall be unlawful for any person to practise medicine in any of its branches within the limits of the State who has not exhibited and registered in the County Clerk's office in the county in which he resides his authority for so practising medicine, as herein prescribed," etc., etc.

It is not pretended that defendant has the authority to practise medicine which is prescribed by the statute. The only question, therefore, in the case is, do the acts and doings of this defendant constitute the offense of "practising medicine" as denounced by the statute?

This depends upon what the Legislature intended by the words "practise medicine." If these words are to be construed as meaning only the administration of drugs, the giving of prescriptions, and the performance of surgical operations, then this defendant is entitled to his acquittal. I think it is a just and certainly a safe rule to construe the language of a criminal statute in the sense in which it is commonly used and understood among intelligent people, and I do not think any person of ordinary intelligence ever uses these terms in the restricted sense here contended. The word "practise" is defined by Webster to mean "the exercise of an art, or the application of a science to the wants of men;" and the word "medicine," "a remedial agent, a remedy, physic," and in its secondary sense, "that branch of science which relates to the prevention, cure, or alleviation of diseases of the human body;" as the "study of medicine" or a "student of medicine." It is in this secondary sense that the term "practise of medicine" is always used among intelligent peo-

ple, meaning the application of "that branch of science which relates to the prevention, cure, or alleviation of diseases to the wants of man."

The defendant claims that he applies to the prevention and cure of disease the science of osteopathy, which his advertisement defines to be "the science of curing diseases without the knife or medicine."

The defendant puts in evidence the *Journal of Osteopathy* for May, 1897, in which "Doctor" William Smith says: ". . . that osteopathy is based upon exact, definite, and verifiable knowledge of the anatomy and physiology of the human mechanism, including chemistry, histology, morphology of its known elements, as make discoverable the great laws of the human system, by which Nature, apart from artificial and medical stimulation, may recover from displacements, disorganization, and consequent diseases, and regain strength and health."

From this evidence it is manifest that the practise of osteopathy is the practise of medicine within the meaning of the statute. And the Court finds as a fact that the defendant has shown himself absolutely ignorant of the most rudimental learning in any branch of medical science. That in his ignorance of the fundamental principles thereof he subjected the child of Mrs. Detroy, which was laboring under a tubercular disease of the hip, to cruel and unnecessary torture, affecting its health and necessitating the employment of a physician to treat it for fever resulting from his inaptitude.

The Court is of opinion that any person who, for compensation, professes to apply any science which relates to the prevention, cure, or alleviation of the diseases of the human body, is practising medicine within the meaning of the statute; and, as a matter of fact from the evidence, that defendant is guilty as charged.

The precedent established is valuable, and it will doubtless aid in clearing Kentucky of quacks.

EDITORIAL NOTES.

British Medical Association.—

The following is the programme of the meeting, which begins on Tuesday next:

Service in the English Cathedral 12 M.; opening ceremonies and address of welcome by T. G. Roddick, M.D., M.P., 3 P.M.; excursion around the Mountain, and garden parties at 4 P.M.; *soirée* at Laval University at 9 P.M.

September 1st: Opening of sections at McGill University at 10 A.M.; Address in Medicine by Doctor William Osler at Windsor Hall at 3 P.M.; excursion down the St. Lawrence, etc., at 4 P.M.; reception by the Honorable Sir Donald A. Smith, G.C.M.G., at 9 P.M.

September 2d: Sectional meetings at McGill University at 9.50 A.M.; lunch on the Mountain at 1.30 P.M.; Address in Surgery by Mr. T. Mitchell Banks at Windsor Hall, 3.30 P.M.; excursion across the Island, etc., 4.30 P.M.; annual dinner of the Association at Windsor Hall at 7.45 P.M.

September 3d: Sectional meetings at McGill University at 9.30 A.M.; Address in Public Medicine at Windsor Hall at 3 P.M.; excursion to Ste. Anne's and down the Lachine Rapids at 4.15 P.M.; *soirée* at McGill University at 9 P.M.

September 4th: Excursion to Ottawa, Quebec, Kingston, Lake Memphramagog, etc.

What Is It?—

This cut, which is reproduced from a photograph sent us, purports to be a representation of an unknown creature taken at Matanzas Inlet, Florida, "and pronounced by eminent doctors and naturalists to be a

connecting link between the fish and the bird." It is also added that Webster describes it as "the 'sea devil' in part," while the American Encyclopedia and History make no mention of anything of its kind.

We are certainly somewhat skeptical as to

the real existence of this nondescript, and all around it is somewhat suggestive of that class of work which in Japan produces mermaids by the adroit junction of a fish and a monkey.

If it is real it is strange that it has not attracted the attention of naturalists and received description in scientific journals.

"Give the Devil His Due."—

A western correspondent calls our attention to the fact that the abstract entitled "Small Doses Frequently Repeated" that appeared in the Progress columns of THE MEDICAL AGE of July 26th, and credited to the *Massachusetts Medical Journal*, is a plagiarism; that it is almost a *verbatim* copy of considerable portions of a paper published by Doctor Smith, of Bellevue Hospital Medical College, in the *New York Medical Journal* for February 10th, 1883.

Comparison shows that this is true. However, this is not, as our correspondent seems to think, a reflection upon THE MEDICAL AGE, but a matter to be dealt with by the *Massachusetts Medical Journal*, which accepted it as original with its putative author. The AGE naturally gave credit to the source from which it derived the article.

Hardly Consistent.—

It is rather strange to hear of an individual who holds the office of "Secretary of the British and Foreign Arbitration and Peace Society" being convicted of "assaulting and beating" a housemaid. But this actually happened in London not long since to one Mr. Lewis Appleton, "author and publisher," who it seems is in the habit of not only behaving violently toward servants, but also of threatening other people with a revolver and sword-stick.

Stercorin.—

In 1862 Austin Flint extracted from human fæces a crystallized substance which he denominated stercorin, but for some reason the discovery did not meet with general acceptance.

It is now understood that two Austrian chemists have rediscovered the same crystallizable substance, which they denominate "koprosterin."

"Laxometer."—

The health officer of one of the cities of Michigan petitions "the Honorable the Mayor and Common Council for a '*laxometer*' for the use of the Board of Health to be used in testing milk for water."—We always suspected that water relaxed milk.

The same individual calls the attention of the officials to the fact that the "city has no place where the citizens or city authorities can use as a 'dumping' ground for refuse material."

How Nice!!—

Every physician in Russia is compelled to wear a silver badge, indicating his profession.

Anything to reduce the medical man to the level of the hackney-coachman and waterman; and yet there are those in America who would like to see badges introduced on this side of the Atlantic.—Its so furrin', y'know.

Acetylene Gas a Poison.—

The statement appears in *L'Elletricista* that a small quantity of acetylene gas in the air, or inoculated into the circulation of animals, is followed by speedy death; a mixture of twenty per cent. of acetylene produced death in an hour. Even when animals are resuscitated with fresh air they ultimately die.

Posture on the Cycle.—

The positions assumed by bicycle riders, and likewise the saddles employed, were recently severely criticized—and justly so—by Doctor A. L. Gilman. This gentleman declares the cycle of the future will consist of three or four wheels impelled by some easily managed motor.

Cordol.—

Under this name tri-bromosalol, a crystalline powder with a melting point of 195° F., has been placed on the market as a sedative. Presumably it is a proprietary.

What is the Best Germicide?—

This is a query put forth by one of our contemporaries. An exchange replies "Wisdom backed by common sense," which certainly covers the whole ground.

Items and News.

Variation in Eggs Owing to Change of Habitat.

H. C. Bumpus has critically examined more than 1700 eggs of European and American sparrows, in order to determine the differences between them. The results of his observations were recently communicated to the American Morphological Society. It was found that the American eggs presented a much greater amplitude of variation, both in shape and color, than the European; that they were smaller, and were also of a strikingly different shape. The large proportion of extreme color variation found to exist in the case of American eggs is not only interesting in itself, but when the figures are compared with those representing extreme variation in *shape*, the significance of both results is enhanced. Not only is the preponderance of variation among American eggs very obvious, but in both cases, in shape and in color, it is almost precisely the same. Mr. Bumpus concluded that the data, whether gathered from comparisons of length, ratio of breadth to length, shape or color, all point in the direction of a general structural modification. The observations have thus an important bearing upon the current theories of degeneration, panmixia, etc.—*Nature.*

Animal Products.—

It would seem as though we of the present generation must either apologize to our predecessors for all the jokes we have cracked at their expense over their use of some of the animal products, or else we must expect to be roundly scored by our successors for the same reason.

The above remark is made because we have just noticed that a much advertised (and doubtless much used) remedy is made by adding together 100 pineal glands and pituitary bodies, 100 salivary glands, 100 thyroid glands, 100 pancreases, 100 inner linings of the stomach, 100 Brunner's glands and Lieberkuhn's follicles, and 100 thymus glands. We would suggest to the manufacturers that it might be well to add to their mixture—

> "Eye of newt, and toe of frog,
> Wool of bat, and tongue of dog,
> Adder's fork, and blind-worm's sting,
> Lizard's leg, and owlet's wing."

—*Columbus Medical Journal.*

Cement for Amber.—

Smear with boiled linseed oil, press strongly together, and heat over a clear charcoal fire. To keep the parts in firm contact it may be well to bind them together with fine, soft iron wire. The surfaces should be carefully cleansed before applying the cement, and as the solvent is very volatile arrangements should be made beforehand for applying compression so that no time be lost. Also a solution of hard copal in ether has been suggested as a cement. Still another suggestion is that the surfaces be moistened with solution of potassa and then firmly pressed and held together.—*Workshop Receipts.*

Malt Extracts.—

As a result of an examination of several liquid extracts of malt on the market, Edgar L. Patch, of Boston, says that not one of these had a particle of diastasic power. They contain from three to ten per cent. of alcohol, but it is not reasonable to believe that they are of any more value than pure beer, or some preparation of extract of malt and alcohol.—*Charlotte Medical Journal.*

[This is not true of *all* malt extracts, however.—ED.]

Ferratin.—

This new agent will be official in the new edition of the Russian Pharmacopœia This early recognition of the therapeutic value of ferratin is a logical result of the scientific work of Schmiedeberg and the complete clinical success with the product. It is the natural iron component of all food, is readily assimilated, and promptly available for blood formation.—*Chemiker Zeitung.*

Quackery in Germany.—

Recently a charlatan was found guilty of selling nostrums for all diseases, and promising marvelous cures. He was sentenced to four years' imprisonment, a fine of $750, and his rights of citizenship suspended for five years. If we had such laws in this country they might serve to protect both the community at large and the profession.—*Atlantic Medical Weekly.*

Natural Sequences.—

A pretty woman will be able to keep her charm if she consumes less starch, glue, and mucilage.—*Exchange.*

A handsome man will retain his good looks longer if he refrains from chewing tenpenny nails.—*Homœopathic Recorder.*

Two Great Sources of Ill-Health.—

Schweininger, Bismarck's physician, declares the two greatest sources of illness are the corset in woman and the silk hat in man.

Book Reviews.

International Clinics, July, 1897. Edited by Judson Daland, M.D., J. Mitchell Bruce, M.D., F.R.C.P., and David W. Finlay, M.D., F.R.C.P. Cloth; 8vo; pp. 371. J. B. Lippincott Co., Philadelphia.

This is Volume II of the seventh series of the clinical lectures on general medicine published quarterly by Messrs. Lippincott & Co. Among the contributors to this volume we note such names as C. D. Bacon, J. M. Baldy, Simon Baruch, S. S. Bishop, C. H. Burnett, J. M. Da Costa, Sir Dyce Duckworth, W. S. Fenwick, W. L. Fox, P. A. Gould, Aloysius O. J. Kelly, G. Hunter Mackenzie, E. E. Maylard, Thomas J. Mays, Henry Morris, Thomas Oliver, Norman Walker, and Casey A. Wood. There are no less than eleven special lectures under the head of Treatment; thirteen under the head of Medicine; one under Neuralgia; six under Surgery; three under Gynæcology and Obstetrics; three under Ophthalmology; two under Laryngology, Pharyngology, Rhinology, and Otology; and one under Dermatology. The most notable of these, perhaps, are: "The Treatment of Puerperal Eclampsia," "Septic Wounds and Their Treatment," "Hæmoptysis and its Treatment," "Chronic Purulent Otitis Media," "Severe Cases of Chorea," "Incipient Locomotor Ataxia," "Colitis and Typhoid Malaria," "Final Diagnosis of Croupous Pneumonia," "Scleroderma," "Repair of Will Loss," "Rodent Ulcer," "Malignant Stricture of the Rectum," "Surgical Diseases of the Kidney," "Intra-Ocular Hæmorrhage," and "Addison's Disease." The papers are so complete and all of such high character that an adequate review would almost emulate in bulk the volume itself.

Essays on Social Topics. By Lady Cook (Viscountess de Montserrat). Cloth; large 12mo; pp. 126. The Roxburghe Press, Westminster, England.

This purports to be a series of essays on social topics and offers the following subheads and chapters: The Ideal Woman; Virtue; Modesty; Maternity; The Lost Rib; Mothers and Their Duties; Regeneration of Society; Prudery; Moral Espionage; Plea for Young and Old Maids; Mothers-in-Law; Aid for the Poor; A Short History of Marriage; True Love; Who Should Propose; Which is to Blame; Wrongs of Married Men; Are We Polygamists; Morals of Authors; Marriage with a Deceased Wife's Sister; Should the Poor Marry; Wives and Mistresses; Degradation of the Sexes; Women Who Should Have Been Wives; Illegitimacy; A Woman's Crisis; Woman's Purity; One of the Evils of Society; and Advice to Parents.

As will be seen, the scope is a very large one, and inasmuch as the authoress was formerly known as Tennessee Claflin, and a sister of Victoria Woodhull, it can be imagined that she treats the subjects named in a way that is novel and unique.

Twentieth Century Practice. Volume XI. Edited by Thomas L. Stedman, M.D. Cloth; 8vo; pp. 962. Price, $5.00. William Wood & Co., New York.

This last issue of what is practically an encyclopedia of modern medical science deals exclusively with diseases of the nervous system. "Diseases of the Cerebro-Spinal and Sympathetic Nerve" is by James Henry Lloyd; "Trophoneuroses" (exclusive of Scleroderma, Acromegalia, Adiposa Dolorosa) is by Charles K. Mills; "Trophoneuroses" (Scleroderma, Acromegalia, Adiposa Dolorosa) is by F. X. Dercum; "Diseases of the Spinal Cord," by L. Bruns and F. Windschied; "Tabes Dorsalis," by T. J. Mobius; "The Combined System of Diseases of the Spinal Cord," by Adolph Strumpell; "Pain," by Lightner Witmer. There is a very concise index.

Birds. Price, 15 cents; $1.50 per year. Nature Study Publishing Co., Chicago.

The unprecedented demand for these beautiful colored photographs has led the publishers to reissue the first three numbers, viz., January, February, and March, and too great praise cannot be given. The frontispiece in the January issue presents a life-size representation of the Nonpareil, in the South otherwise known as the "pop bird," a little creature which rivals the canary as a domestic pet. The other plates are the Resplendent Trogon, Mandarin Duck, Golden Pheasant, Australian Grass Parrakeet, Cock-of-the-Rock, Red Bird of Paradise, Yellow-Throated Toucan, Red Rumped-Tanager.

The plates in the February issue are: American Blue Jay, Swallow-Tailed Indian Roller, Red-Headed Woodpecker, Mexican Mot Mot, King Parrot, American Robin, Kingfisher, Blue Mountain Lory, Red-Winged Black Bird, American Red Bird.

In the March issue appears the Blue Bird, the Barn Swallow, Brown Thrush, Japanese Pheasant, the Yellow-Shafted Flicker (or Golden-Winged Woodpecker), Bobolink, Reed Bird and Young, Common Crow, Black Tern, Meadow Lark, and Great Horned Owl.

The value of these little books in educating youth cannot fairly be estimated. If not desired for any other purpose the plates are well worthy of frames and a place on the library wall. No oil or water-color can compare either as to accuracy of delineation or hues.

The plates in the July issue represent the American Bald Eagle, the Semipalmated Ring Plover, Mallard Duck, American Avocet, Canvas-Back Duck, Wood Duck, Anhinga or Snake Bird, American Woodcock, White-Winged Scoter, and Snowy Heron or Little Egret.

Vick's Illustrated Magazine. Price, 5 cents; 50 cents per year. Vick Publishing Co., Rochester, N. Y.

The August number presents an exceedingly interesting table of contents as follows: "A Bit of Summer;" "Azalias;" "The Rathbun Blackberry;" "Vougainvillea Glabra Sanderiana;" "Bugs and Fruit;" "The Use of Bulbs;" "Raising Cucumbers;" "Evergreens;" "Favorite Flowers in Garden and Greenhouse;" "Culture of Ferns;" "Propagating Geraniums from Leaves;" "Truths About Hedges;" Horticultural Features of Calcutta;"

"The Japanese Iris;" "Japanese Farming;" "How to Grow Lilies, Peonies, and Pansies;" "The Columbian Raspberry;" "Winter Flowering Varieties of Roses;" "An Excellent Tea Rose;" "Japanese Snowball;" "Arguta Aspirœa;" "The Wall Flower;" "The White Pine;" "The Welwitschia at Kew." There are the usual Letter Box, Editorial, etc.

THE COSMOPOLITAN. Price, 10 cents; $1.00 per year. The Cosmopolitan Publishing Co., Irvington, New York.

In the August number Robert P. Porter writes of "Japan's Stage and Greatest Actor;" "Fighting Snow-Drifts"—For Midsummer Reading—is by Lewis Mclouth; "India Starving," by Julian Hawthorne; "A New Rendering of the Rubáiyát" (II), by Richard Le Gallienne; "A Silhouette," by Albert E. Lawrence; "Godfrey de Bouillon," by James M. Ludlow; "A Matter of Interest," by Robert W. Chambers; "Modern College Education," by Timothy Dwight; "Illusions," a story by Elizabeth C. Cardozo; "The Council of the Stars," by Livingston B. Morse; "The War of the Worlds," by H. G. Wells. The illustrations are by Kenyon Cox, Eric Pape, B. W. Clinedinst, Warwick Goble, and Mark Sangwill.

BULLETIN OF THE BUREAU OF AMERICAN REPUBLICS. Price, 10 cents; $1.00 per year. Government Printing Office, Washington.

This is No. 2 of Volume V, and shows a very much improved appearance. The contents are: "Trade Relations in America;" "National Association of Manufacturers;" "Fair and Equal Commerce;" "The St. Louis Spanish Club;" "Railway Concessions in Bolivia;" "Arbitration Treaty Between Brazil and France;" "The Monopoly of the Manufacture and Sale of Matches in U. S. Colombia;" "Colombia Indian Rubber Exploration Company;" "Letter of President Bonilla of Honduras;" "New Mining Tax in Mexico;" "Re-establishment of the Tobacco Monopoly, and Price of Public Lands in Nicaragua;" "Immigration and Colonization Agency in the United States."

THE AMERICAN NATURALIST. Price, 35 cents; $4.00 per year. The Edwards & Docker Co., Philadelphia.

In the August number G. Baur writes of "New Observations on the Origin of the Galapagos Islands, with Remarks on the Geological Age of the Pacific Ocean;" a contribution to the phylogeny of the primates, entitled "On the Affinities of Tarsius," is by Charles Earle; "The Swamps of Oswego County, New York, and their Flora," by W. W. Rowlee. There are also "Editors' Table," "Recent Literature," "Recent Books and Pamphlets," General Notes on Geology and Paleontology, Botany, Vegetable Physiology, Zoology, Entomology, Embryology, Pyschology, Anthropology, Microscopy, "Proceedings of Scientific Societies," and "Scientific News."

THE OSPREY. Price, 10 cents; $1.00 per year. The Osprey Co., Galesburg, Illinois.

The July-August issue contains: "Song Notes and Nesting Notes of the Western Meadow-lark," by P. B. Peabody; "Modifications of Our Avifauna," by J. M. Keck; "Chimney Swift,—How Does it Break Off the Twigs?" by E. S. Currier; "The American Osprey in the Yellowstone National Park," by M. J. Elrod and J. H. Clark; "Remarks on the Habits of the White-breasted Nuthatch," by Edwin E Haines; "The Woodpeckers of Maryland." by W. H. Fisher; "A Tragedy, a Courtship, and a Marriage," by H. T. Van Ostrand; "The Hermit Thrush," by Morris Gibbs; "Odd Nesting Sites," by R. C. Woodhouse. There are the usual Editorial Notes, Recent Literature, Correspondence, etc.

THE MIDLAND MONTHLY. Price, 15 cents; $1.50 per year. Johnson Brigham, Des Moines, Iowa.

The principal papers in the August issue are: "General Lyon and the Fight for Missouri," by J. S. Clark; "Birds of the Midland Region" (II), by D. L. Savage; "The Western Meadow Lark," by Ida A. Baker; "The Wreck of the Ferndale," by Herbert Bashford; "A Morning Afield," by Minnie Stichter; "Grant's Life in the West and His Mississippi Valley Campaigns," by John W. Emerson. In the Fiction Department Helen P. Clute writes of "The Vagrant of Caser Mine" (I); "A Tragedy of the Plains" is by Louise M. Hopkins; "Lieutenant Burton's Wooing," by Henry Romeyn. There are the usual poetry and departments.

NORTH AMERICAN REVIEW. Price, 50 cents; $5.00 per year. North American Review Co, New York.

The August issue gives a second instalment of General Grant's letters to his friend, Hon. E. B. Washburne, annotated by James Grant Wilson. The fourth of M. G. Mulhall's papers on the "Progress of the United States" concerns "The Prairie States," while the third article of special prominence is "The Menace of Legislation," by J. H. Eckles. Other contributors to this number are Edmund Gosse, Professor A. B. Isaacs, H. C. Ide, Green B. Raum, Admiral Colomb, Doctor Doty, E. T. Hargrove, A. R. Smith, and M. W. Hazeltine.

DONAHOE'S MAGAZINE. Price, 25 cents; $2.00 per year. Donahoe Magazine Company, Boston.

In the August issue M. T. Elder asks "Is the Country Cursed?" "A New Trades-Union Plan" is described by Bolton Hall; William H. Boughton writes of the "Building of Churches;" "The Colonel, the Widow, and the Others" is by Thomas G. Taaffe; "Men and Things," by Henry A. Adams; Mary F. Nixon writes of some "Famous Assumptions;" "Scenes at Ellis Island" are depicted by Mary B. O'Sullivan. L. Marion Jenks and D. J. Donahoe contribute the poetry of the number.

ARCHITECTURE AND BUILDING Price, 10 cents; $4.00 per year. William T. Comstock, New York.

August 7th number contains: "Our National Forests;" "Editorial Notes and Comments;" "Recent Boston Architecture" (III); "The Pantheon of Pompeii;" "Explorations in Egypt;" "Iron Felt;" "The Competition for the New York Proposed Public Library;" "Technical Education in Architecture and the Building Trades;" "Egyptian Architectural Monuments;" "A Friction Study;" "Industrial Progress."

Therapeutic Brevities.

Epithelioma and Arsenious Acid.—The operative treatment of cancer has always been felt to be only a *pis aller*, often dangerous in its application, and always uncertain in its results. Among the numerous remedies recognized at various periods of the history of medicine, arsenic is certainly one of the most ancient. It has been tried internally, and as a local application; but even the temporary improvement occasionally observed by Billroth has not been obtained by other equally trustworthy observers. However, Czerny and Truneck, of Prague, recently adduced results which appear to merit attention. Their first attempts with arsenic in powder proved abortive, the thick scab which immediately formed effectually preventing any further action on the diseased tissues. They ultimately decided to make use of a solution of arsenious acid in equal parts of rectified spirit and water, of the strength of one part of the acid in 150 of the menstruum. So far their observations have borne exclusively on ulcerated superficial growths, the histological structure whereof could be demonstrated by microscopical examination. The first step is to thoroughly cleanse the sore by vigorously rubbing or scraping the raw surface. The effusion of a moderate quantity of blood is a desideratum, it being indispensable that the remedy should come into contact with the tissues in presence of freshly exuded blood. The surface of the ulcer is then thoroughly moistened with the solution, shaken up before using, and allowed to dry, preferably without dressing of any kind. Some pain usually follows the application, but not of intolerable severity. A scab forms, over which the solution is applied daily. By and by the margins of the scab tend to separate from the subjacent tissues, and the treatment is continued until the scab is only retained in place by a few loose adhesions. These are divided, and the scab removed. A fresh application of the arsenical solution is made, and if, on the day following, the resulting scab is thin, of a light yellow color, and easily detachable, it indicates that the tissues no longer comprise any trace of cancerous growth. If, on the other hand, a dark-colored, firm, and closely adherent scab again forms, the whole treatment must be repeated. The thicker the resulting scab the more energetic should be the treatment—that is to say, the stronger should be the solution, the strength of which may then be increased from one in 150 to one in 100, or even one in eighty. When the desired result has been attained, there remains a granulating wound covered with a delicate white pellicle, to be dealt with on general principles. The formation of cicatricial tissue may be minimized by the application of boracic acid ointment along the margins of the ulcerated surface. The duration of the treatment varies from three to four weeks to as many months, according to the depth and extent of the lesion.

The procedure described appears to be especially applicable in cases of cancer of the skin not associated with glandular enlargement, and perhaps also in cancer of the tongue, in which the prognosis is so unfavorable and surgical treatment so unsatisfactory. The authors believe that the effect of the treatment is in part due to the alcohol, and they attach special importance to the presence of fresh blood on the ulcerated surface when making the first application. The remedy is a simple one, and admits of ready trial.—*Medical Press and Circular.*

Metritis.—In the acute form the first indication is to command absolute rest in bed. For the pain there are many efficient remedies—hot baths, laxatives, laudanum douches (ten to thirty drops of tincture opium added to the ordinary volume of a douche), opium suppositories, etc.

Proper local medication must be employed to arrest local inflammation. In simple cases it will only be necessary to give, morning and evening, voluminous hot injections (100° to 120° F.) of sterilized water; in the interval between the injections tampons of wool, asepticized and saturated with glycerin, can be applied to the cervix. In more severe cases, as in the blennorrhagic form, it will be necessary to have recourse to antiseptic intra-uterine injections practised with a double current sound. The solutions most recommended are sublimate 1 to 2000, and potassium permanganate 1 to 1000.

If the acute attack has a tendency to linger, hot vaginal douches, morning and evening, must be continued, as well as the intra-uterine irrigations, and permanent topical applications added. Crayons medicated with potassium permanganate, iodoform, etc., must be carefully introduced into the cervix and cavity after each hot injection.

When metritis has passed into the chronic stage the first maneuver is to dilate the cervix so that the entire surface of the cavity can be reached—preferably by laminaria tents; on successive days the dilatation is increased by the introduction of tents larger in diameter. When the dilatation is sufficient, after having thoroughly cleansed the uterine

cavity make applications to modify the mucous membrane; very often local applications of tincture of iodine is all that is needed, but some secure good results with zinc chloride, diluted nitric acid, carbolic acid, though these latter are apt to cause too great a destruction of tissue, and it is only necessary to *modify the nutrition* of the mucous membrane. It is more prudent to cling to the tincture of iodine, creosote in glycerin, perchloride of iron, etc.; but whatever may be the local application, the uterine cavity should thereafter be immediately lightly packed with gauze. Another local application, whose efficacy is remarkable and whose harmlessness is absolute, is camphorated naphthol; gauze charged with this drug is carried into the cavity.

The duration of the treatment will depend on the previous duration of the disease, and the general resistance of the patient. While local treatment is more important, general treatment should not be neglected. Many patients with metritis are anæmic and suffer from nervous instability and rheumatic diathesis. For the first, tonics are prescribed with cod-liver oil, calcium phosphate, etc.; for the second, hydrotherapy, bromides, etc.; for the arthritic complications, potassium iodide is best.—Barozzi, in *La Presse Médicale.*

Vinegar as a Hæmostatic.—I wish to confirm the article I saw in your valuable journal a few days ago concerning the use of vinegar as a uterine hæmostatic. My faith is so strong in its favor I have never used anything else for four years. I employ it in a fountain syringe, diluted, equal parts, with hot water; push the nozzle well up into the womb when the hæmorrhage is post-partum.

When there is an abortion on hand and the placenta loosening and coming away a piece at a time, which process sometimes requires days to complete, I use intra-uterine injections by means of a fountain syringe and uterine irrigator. If there is no immediate danger I attempt to clear the uterine cavity by dilating the os and using a curette, but where there is syncope and a general anæmic condition this procedure might prove fatal, and in such cases I use my injection and place a tight tampon.

In all cases I have returned inside of twenty-four hours and found my patient quiet, free from pain, with a good pulse, etc., and on removing the tampon found the fragments outside of the cervix and no hæmorrhage except a small black clot. Cessation of the pains is an indication for removing the tampon; afterwards I use injections of only hot water.

In post-partum hæmorrhages I do not use a tampon, but repeat the injection if necessary.—Estep, in *Medical Council.*

Alcohol in Typhoid.—The general consensus of opinion is that alcohol is of great service, but there is still a question as to whether it can be rightly regarded as a cardiac stimulant. The most to be said is that it is a very mild stimulant to the heart. In this regard it cannot be compared with cocaine, strychnia, and other drugs. Notwithstanding this fact, however, it is undoubtedly a most useful remedy in typhoid. It is probable that it has the effect of increasing the resisting power of the tissues and is also to a considerable extent germicidal. There is another very curious thing about alcohol which sets it apart from all other drugs. Opium and other agents, when taken into the system, carry their message to the nerve centers and are then gradually eliminated; but alcohol, once taken in, never comes out. Give a man a wineglassful of whiskey or brandy, and it can always be detected in the breath; but this is not true in typhoid, if properly given. Here, then, is a useful point in the administration of alcoholic stimulus in this disease. If in any case the odor of alcohol can be detected in the breath, one can be sure the matter is being overdone and that the patient's system has not the ability to make use of all the stimulant given. In typhoid, alcohol acts not only by furnishing resisting power, but also by repairing the tissues which are being burnt up by the force of the disease.—H. C. Wood.

Taka-Diastase.—It was my good fortune to assist Mr. Takamine, in the summer of 1895, in making experiments in reference to the amylolytic action of the digestive agent (which was introduced to the medical profession by Parke, Davis & Co.) as the outcome of his investigations, and to which was given the name of Taka Diastase, in honor of the discoverer. At the same time comparisons were made between Taka-Diastase and the preparations on the market for which diastasic property was claimed, and the thorough and conscientious manner in which Mr. Takamine made these experiments and comparisons day after day, and with every diastase available, convinced me that if he were a type to which a large number of men of his nationality could be said to conform, it was not surprising that the Japanese nation had made the progress apparent during recent years.

During these experiments I became thor-

oughly convinced of the undoubted merit of this digestive agent, which subsequent reports from members of the profession who have tested it in practise have amply confirmed.—THOMAS CHRISTIE.

Spice Poultice.—Take one teaspoonful each of mustard, ginger, black pepper, cinnamon, cloves, nutmeg, allspice—or as many ground spices as may be found in the kitchen—and mix in a dry bowl,—unless this is done the mustard will lump when hot water is added. Now add boiling water, little by little, with constant stirring, until the mass is of the consistency of soft putty. Too much water will cause the poultice to run through the meshes of the cloth—too little leaves it so dry that it fails to hold together. Next put the poultice, steaming hot, into the middle of a thin handkerchief or similar square piece of cloth and spread out to about the size of the open hand; fold over it one side of the cloth, then the other side, and finally the two ends. It is now ready for use, and may be left in place all night without danger of blistering.

The efficacy of this soothing poultice depends on the essential oils in the spices, and these are brought out only by using scalding water.—*Nursing World.*

Bullous Cinchona and Quinine Eruption.—Two days after taking fifteen-drop doses of compound tincture of cinchona a patient complained of intolerable itching, which was soon followed by vesiculation on the genitalia, face, and ears; the whole general surface of the body rapidly became the seat of a scarlatinoid dermatitis. As this began to decline, the palms and soles became affected with blebs, as much as eight ounces of serum being evacuated. The blebs recurred, and it was five or six weeks before recovery was complete, the palms being the last to recover. The same phenomena had before occurred from the administration of quinine. The chief points of interest are the variety of the bullous manifestations and the great disproportion between the violence of the cutaneous outbreak and the small amount of drug ingested.—JOHNSTON, in *Journal of Cutaneous and Genito-Urinary Diseases.*

Tonsillitis.—Acute tonsillitis can be relieved in a few minutes and cured in a few days by the local application of muriate tincture iron, diluted fifty per cent. with water. For children dilute further with water, about half the strength of the above, or two parts water to one of tincture of iron. Apply with a mop two, three, seldom four, times in the twenty-four hours. Very seldom will it require to be used more than two days. Many patients need some tonic in addition, as the system is usually debilitated by absorbing fæcal matter, constipation being a feature of the complication. In fact, Nature is making an effort to rid itself of poisonous matter through the general system, and the tonsils suffer.—*Medical Summary.*

Chronic Malnutrition of Infants.—The combination of yolk of egg and olive or cotton-seed oil is very useful and can be made as follows: Olive oil, two ounces; glycerin, one ounce; yolk of one egg. Make an emulsion, and add one-half minim of creosote to each drachm. Occasionally it is better to use a smaller amount of creosote when this agent is not well borne by the stomach. A full teaspoonful is given three times a day after feeding. The preparation seems to be readily tolerated, even when the stomach is irritable.—*The American Practitioner and News.*

Galactorrhœa.—No remedy is of more positive action in galactorrhœa than belladonna. Given internally it will certainly arrest the secretion of milk, and even if active inflammation is in progress, and pus present in the breast, the persevering use of it and phytolacca, in combination or alternately, will bring about surprising results. The same is true of the treatment of carbuncles, boils, and abscesses generally in enfeebled patients. Echinacea makes an excellent companion remedy in these cases.—*Eclectic Medical Journal.*

Tobacco and Consumption.—On going carefully over my records of pulmonary consumption, I find no single case died early from the disease that used tobacco, whilst on the other hand three cases that were inveterate smokers lived to a ripe old age before succumbing to the malady. All cases now under my treatment for tuberculosis are non-users of tobacco. Frequent use of the pipe has seemed to me to have the effect of decidedly checking the course of the disease.—SNEED, in *Medical World.*

Puerperal Eclampsia.—I believe that given a case of puerperal eclampsia a successful result is to be expected if twelve to twenty-four leeches can be applied over the renal region soon after the commencement of fits. Whether the local depletion has some powerful counter-

irritant effect in the modification or abolition of the convulsions I am not in a position to say, but the fact remains that in the cases I have seen the issue has always been successful.—WIGGINS, in *The Lancet* (London).

Sulphur and Cream-Tartar.—Mixed of equal parts this forms an excellent laxative for hæmorrhoidal conditions during pregnancy, producing soft and semi-liquid stools.—DA COSTA.

[The "grannies" greatly extend the scope of the mixture, adding honey and treacle, and it must be acknowledged it is a valuable domestic remedy for many other conditions.—ED.]

Ophthalmia Neonatorum.—The instillation of a few drops of fresh lemon juice into an infant's eyes immediately after birth is an excellent means of preventing purulent ophthalmia, and is quite painless. As a rule the juice does not cause any conjunctival irritation; only now and then there may appear slight catarrhal phenomena, which, however, quickly subside without any treatment.—*Gazeta Lekarska.*

Gelsemium for Ovarian Pains.—Gelsemium is most valuable for the relief of ovarian pains, which are due to no apparent change in the position or structure of the ovary.

The fluid extract is the preferable preparation, and is best given in doses of from one to two drops, combined with a drachm of the fluid extract of viburnum prunifolium. Repeat four times daily.—TALLEO.

Typhoid Fever.—Keep the patient in bed until, for an entire week, the temperature has been normal. Keep him on a sterilized liquid diet as long as he remains in bed. At the beginning of the disease give ten grains of calomel on alternate days, and also give one grain of carbolic acid and three drops of tincture of iodine every four hours during the entire illness.—*Medical Record.*

Thyreoid Extract for Uterine Fibroids.—Thyreoid extract is beneficial in the metrorrhagia of fibroid tumors of the uterus; in several instances also it was successful not only in checking the growth of the tumor, but there was even decided retrocession with amelioration of the local symptoms and improvement in general health.—POLK, in *Medical News.*

Irritable Bladder.—In post-partum irritability give a tablespoonful three times a day of the following:

℞ Salol, 2 drachms.
Tincture hyoscyamus, 2 drachms.
Infusion buchu, sufficient to make 6 ounces.

Iodine as a Depilatory.—To alcohol forty-eight parts, add 140 parts collodion, three parts iodine, six parts oil of turpentine, and eight parts of castor oil. Apply thick and keep on for three or four days. When it is removed, the hair comes with it.—STORBECK.

Carbolic Acid—Caution.—In using in infants always be on guard against poisoning. The first evidence is shown by the urine, which leaves a pink stain on the napkins after being exposed to the air for half an hour.—*Medical Times and Hospital Gazette.*

For Whooping-Cough.—In a note from an unidentified journal it is said that five or ten drops of oil of fennel given twice daily is often effective in mitigating the paroxysms of whooping-cough—a return, it is said, to an old remedy.—*Chemical Gazette.*

General Septicæmia.—The latest treatment advocated is by hypodermatic injections of creosote. The creosote is mixed with equal parts of camphorated oil, and twenty minims of the solution is injected three times a day.—*Medical Week.*

Dangers of Acetanilid.—Several cases of cyanosis have recently been reported in infants from the dusting this over the umbilicus. If employed it should be mixed largely with more harmless powder.—*Cincinnati Lancet-Clinic.*

Turpentine in Mumps.—In usual doses, according to the age of the patient, turpentine is a specific against mumps. The patients quickly recover, and without metastasis to other organs.—*Massachusetts Medical Journal.*

Digitalis.—Digitalis should be carefully avoided in aged persons, because of its action on the arterioles of the heart, whereby the general nutrition is impaired.—JACOBI.

Furunculosis.—*Echinacea angustifolia* taken internally will abort boils.—*Texas Medical Journal.*

Medical Progress.

MENINGITIS AND HYDROCEPHALUS.—The progress of knowledge in respect of the causation of hydrocephalus in association with various forms of meningeal inflammation has been painfully slow. Since Hilton, in his famous lectures on "Rest and Pain," first formulated the view that the accumulation of fluid in the ventricles was due to blockage of the foramen of Magendie, the tendency has been to ascribe all forms of hydrocephalus to the same mechanical cause in spite of the fact that numerous instances have been adduced in which this foramen was not obliterated, and in some instances was even dilated. The first step in advance was to distinguish the form of hydrocephalus due to tuberculous meningitis, and further light has now been thrown on the subject by the very interesting debate at the last meeting of the Royal Medical and Chirurgical Society on the newly differentiated group of posterior basic meningites. The subject has been carefully studied by Doctor Barlow and Doctor Lees, and their conclusions are in great measure confirmed by the further group of cases brought forward by Doctor Walter Carr. There appears to be a well defined type of meningeal inflammation in which the lesions are practically confined to the posterior base. The principal symptom is marked retraction of the head and an extraordinary degree of opisthotonos, keeping the patient, often for weeks together, with the back of the head approximated to the buttocks. Hydrocephalus is of frequent occurrence in these cases, but the accumulation of fluid in the ventricles cannot in all the cases be ascribed to blockage of the foramen of Magendie, or to closure of the foramen of Monroe. Failing to find a satisfactory explanation of the hydrocephalus on the blockage theory, Doctor Carr fell back upon a hypothetical distention of the veins of Galen. The careful and painstaking researches of Doctors Lees and Barlow, however, go to show that a more plausible explanation is the occurrence of blockage elsewhere than in these foramina. They have succeeded in demonstrating, in fact, that the roof of the fourth ventricle may become agglutinated to the floor, and that the adhesions which are held to be so characteristic of posterior basic inflammation may obliterate the subarachnoid space which surrounds the spinal cord, at one or several points, thus preventing the normal escape of the cerebro-spinal fluid along the sheaths of the outgoing nerves into the interstices of the tissues.

These observations afford a ready explanation of the varying degrees of the cranial tension observed in these cases. Their ætiology is still obscure, but there are strong grounds for believing the exciting agent to be one or several micro-organisms, and if this view be correct, it is evident that the predisposing causes may vary indefinitely, because any of the many conditions which favor the introduction or development of an infective organism may favor the meningeal infection. Injury is credited with having determined the disease in too many instances for its possible importance as an ætiological factor to be disregarded, and of even greater interest is the frequency with which the victims of this disease, which is almost confined to young infants, have previously suffered from catarrhal symptoms. Middle-ear disease has been discovered post-mortem in a very large proportion of the cases, though apparently not in larger proportion than in children dying of diseases not involving the brain. Given the imperfect development of the temporal bone in young children, and the shortness of the Eustachian tube, it is evident that peculiar facilities exist for infection of the tympanic cavity; and the lymphatic and venous connections of that cavity, with the interior of the cranium, are so numerous and so close that the spread of the infection must be extremely easy.

This close connection between the tympanum and the interior of the cranium is, however, an argument which admits of more than one conclusion, for if purulent infection can spread readily enough from the tympanum to the brain, infection in the opposite direction is also possible. The middle-ear inflammation may consequently be the consequence, instead of the cause, of the meningeal infection. The disease is an exceedingly fatal one, cases of recovery being recorded as quite the exception, consequently its treatment by operative measures possesses a particular importance. Naturally enough when one finds, post-mortem, that the foramina of the ventricles are blocked the idea occurs that the distention may be relieved by puncture or incision, and this idea has been carried into practise in a large number of instances, with at any rate temporary relief. We apprehend, however, that no cure of the disease is to be expected from mere relief of distention dependent on mechanical obstacles to the proper drainage of the cerebro-spinal axis. Apart from the instant danger of rapid diminution of tension in such a delicate organ as the brain, the fact remains that the real source of the trouble has been left untouched. Surgeons are unanimous in af-

firming that if any serious attempt is to be made to avert the otherwise inevitable fatal termination it must be made earlier in the history of the case by relieving the inflammatory mischief which soon culminates in disorganization of the cerebro-spinal system. Once hydrocephalus has supervened the mischief has been done, but if performed early enough the occlusion of the foramina and the formation of adhesions may be averted, and then, as the inflammation subsides, the parts resume their normal functions. In other words, we must treat the meningitis, and not the resulting hydrocephalus. It is suggested that this can be done by incision of the membranes tympani, and this trivial operation, itself unattended by any risk, is advocated by more than one authority as a routine measure. Mr. Ballance opened up a new vista of possibilities by the narration of a case of purulent infection following the opening of a cerebellar abscess, in which a cure was effected by the injection of pneumococcic antitoxin. The bacteriology of the meningites and of the resulting hydrocephalus is still, to a large extent, *terra incognita*, and bacteriologists on the lookout for work cannot do better than to devote their attention to this subject, which is certain to yield a rich harvest of useful information on a matter of the greatest practical importance. —*Medical Press and Circular.*

Thyroid Treatment of the Insane.—Experiments were made on some forty cases, ranging from the acute forms of mania and melancholia to the long abandoned dement; but the bulk were those of dementia under fifty years of age and not too long standing. Very severe tests were also made in cases of acute mania and recent melancholia, by suddenly dropping all other medication. The results were: Unimproved, eight; improved, twelve; greatly improved, fourteen; cured, five; died, one.

In forty-eight hours after commencing the thyroid (ten grains three times daily) a dement aged about thirty-five (his voice had not been heard for five years except once when he cried from acute pain) was conversing freely and intelligently. In spite of persistent treatment for some months he gradually relapsed, though he will still reply to questions, but never voluntarily enters into conversation. A profound melancholiac of one year's standing, silent and morose to an extreme degree, under thyroid was picking husks for a mattress and became so hilarious and talkative as to appear hysterical; he has never relapsed and will probably recover.

Another melancholiac, who always improved under opium but relapsed as soon as the drug was withdrawn, on the substitution of thyroid recovered and was sent home within a month; has remained well.

Two dements of seven and fifteen years' standing, and between forty and fifty years of age respectively, were rendered so ill by thyroid (which induced vomiting, profuse perspiration, and great heart depression) that its administration had to be discontinued; there was no perceptible improvement in either case.

Two young men in their twenties suffering from acute mania, characterized by violent outbursts and exacerbations, one of six and the other of eighteen months' standing, in whom all other treatment failed, were both cured and returned to their homes.

A strong man suffering from acute mania of violent type, talked, swore, or sang incessantly, broke everything in his reach, and could not be controlled by any form of restraint, in twenty-four hours after taking the thyroid became quiet and docile and still remains so; he would have been discharged but for some delusion which seemed difficult to eradicate.

A case of chronic mania became so violently excited that the thyroid had to be discontinued; the result negative.

Seven years ago a young married woman aged thirty was seized with acute mania, passing into dementia within twelve months. Up to the beginning of thyroid treatment, two years since, she remained in this condition. Was as helpless as an infant, dirty in habits, etc. The thyroid treatment with her was magical; she was talking the next day; the second day dressed and undressed herself; third day asked for work to keep time from hanging heavily.

The effect of thyroid upon the mental condition of the insane is certainly most extraordinary. Though only twelve per cent. of cases have been actually discharged as cured, its effect upon others who may yet recover, or in ameliorating the condition of those who may never recover, must be taken into consideration.—Charles G. Hill, before the Medical and Chirurgical Faculty of Maryland.

Abortion, Normal and Otherwise.—Disputes about the nature of products of gestation discharged otherwise than in normal labor are only too familiar to all. Experts are not always agreed as to the simplest questions pertinent to the subject. Once upon a time, when Parry had directed attention to extra-uterine pregnancy but before

the surgeon cared to interfere, a plausible but most suspicious kind of clinical report was occasionally seen in medical serials: Somebody diagnosed tubal gestation, a few weeks later abortion occurred, and forthwith the case was reported as a tubal pregnancy ending in expulsion of the ovum into the uterus. Quite recently Skutsch, of Jena, reported such a case on his own responsibility.

Returning to the earlier reporters, we may note that all their cases were very naturally taken to be errors of diagnosis; some undoubtedly were mistakes. Soon abdominal surgeons showed that tubal pregnancy is a common disease. In the course of their triumphs it was found that hæmorrhage into the peritoneal cavity and expulsion of the ovum from the tube did not always mean rupture of the tubal sac; the ostium of the tube was found wide open; in short, the phenomenon known as "tubal abortion" was discovered. If the ovum could be expelled into the peritoneum, why could it not be expelled into the uterus? The answer is that in tubal abortion the sac lies close to the ostium, which can readily dilate. But a tubal sac seldom develops close to the uterus, and the uterine end of the free part of the tube is very unlikely to become much dilated without bursting. In that event the ovum would go into the peritoneum, not into the uterus. There remains to be considered tubo-uterine or interstitial pregnancy. The sac develops in the portion of the tube which traverses the uterine wall. As a rule—or always, according to most authorities—rupture occurs early in this form. The uterine wall is much thinned, its serous coat ruptures, and the ovum is forced into the peritoneum; dangerous hæmorrhage accompanies the accident.

But Skutsch maintains that the uterine wall may rupture on the side of the sac which projects into the uterine cavity, so that the ovum is expelled into the cavity and thence out of the vagina as a common abortion. He describes a case where a complete and thick decidua was expelled and afterwards the ovum followed; the latter could certainly never have lain inside the decidual cavity. The right cornu of the uterus felt greatly thickened. Skutsch clearly means that there was no suspicion of a bicornute uterus or any allied malformation. He goes so far as to think that "tubo-uterine abortion" is not rare, though tubo-abdominal abortion is far more common. The subject must now be given grave consideration, since Skutsch is a careful observer. An expelled decidua should always be examined with great care, and the size of any rent in its substance noted and compared with the size of the ovum. The time when the latter was expelled must also be recorded and the amnion carefully inspected.—*British Medical Journal.*

On Meat Substitutes.—So-called "peptones" cannot be used as a substitute for meat in more than two-thirds the quantity necessary, even with normal digestive system, without exciting diarrhœa and thus preventing their absorption. Neumeister explains this apparent anomaly by calling attention to the fact that peptones produced in the digestive tract are quickly absorbed, and the bowel never has normally to deal with so large quantities as are present after ingestion of artificial preparations; the same is true of other albumose preparations such as somatose. It is therefore better to attempt substitution by means of pure albumen not predigested and which is in a form to be readily digested; such may be had in a combination of casein with sodium. I dieted myself through certain periods, in some of which the diet contained meat in undigested condition, in others a portion of the meat was replaced by casein-sodium or peptones,—the nitrogen in the ingested food and in the urine and fæces was estimated by Kjehldal's method. The results evidenced that peptones were absorbed in lesser amount than the meat, and the nitrogen-elimination very closely approached the amount ingested; while, on the casein-sodium diet, the absorption was somewhat better than that of meat diet, and elimination was much less than ingestion. Entirely replacing the meat by casein and sodium and by somatose, the results were decidedly against the latter in both particulars, the elimination exceeding the ingestion, and severe diarrhœa ensued. The casein-sodium diet had no ill results and showed an even more marked advantage over the meat than in the first experiments.—Bornstein, in *Wiener Medizinische Wochenschrift.*

Baths for Infants.—The hand is an unsafe guide by which to determine the temperature of the water; the thermometer should always be used instead. The following table shows the proper temperature of the bath for various periods during the first two years:

At birth	100° F.
During first month	97° F.
One to six months	95° F.
Six to twelve months	90° F.
One to two years	86° F.

Soap employed for the baby's bath is of importance; but soap containing an excess

of alkali may seriously irritate a child's delicate skin. The best grade of white Castile soap is the most suitable, though oatmeal soap of good make may also be employed. A dusting powder is not necessary when the skin is in normal condition and properly dried after the bath, and one of the chief objections to its use is that nurses are prone to rely upon it, instead of taking proper care in drying the surface. When properly used there can be no objection to it.—*North American Practitioner.*

To Preserve the Perineum.—It is my practise to introduce two fingers of the right hand into the vagina, and with each pain stretch the perineum in advance of the head; I have often found extreme rigidity disappear in a few minutes under this treatment. The patient's attention being occupied by the severity of the pain, no objection is ever raised to this procedure. When the head begins to distend the vulva the real work begins, but full expansion has by this time been secured.

Two fingers are introduced behind the occiput, and this part of the head is brought well down under the pubic arch. The diameter of the head passing through the outlet will thus be materially lessened, and so also will be the tension on the perineum.

Surgically clean cloths, wrung out in hot water, applied directly to a tense perineum often secures good results.—Oliver, in *American Medico-Surgical Bulletin.*

Operation for Vaginal Cystocele.—I first make a longitudinal median incision through the mucous and submucous tissues of the anterior vaginal wall, extending from the fornix to the suburethral tuberculum, if necessary, and then two small transverse incisions perpendicular to the first incision at each end of it, and raise the square side flaps thus formed. Next, suture the two attached edges of these square side flaps together, and reduce the prolapsus, completing the operation by suturing the free edges of the flaps. By this means a solid foundation for the vaginal wall is secured and threatening prolapsus uteri averted. The same process could be applied to rectocele, with slight variations.—Marsi, in *Gazetta d' Ospitali.*

Seborrhœic Vaginitis.—There is a peculiar form of catarrh of the vagina, frequently met with in stout women, old maids, and during pregnancy, which may be considered as due simply to exaggeration of the normal secretion; it is characterized by a slight discharge, consisting mainly of whitish, fatty clots, in which are found agglomerations of pavement epithelium. Recovery is rapidly obtained by means of vaginal injections of warm water, to which a tablespoonful of sodium bicarbonate has been added.—Strassman.

Infectious Nature of Acute Rheumatism.—The infectious nature of rheumatism is shown, according to Jaccoud, by the case of an infant born while the mother was suffering from this malady. Twelve hours after birth the child was attacked by fever and swelling of the joints, which disappeared under salicylate of sodium at the end of eight days. In a second case the mother was suffering from polyarticular rheumatism, and the infant became affected.—*Cincinnati Lancet-Clinic.*

Enuresis in Female Children.—It has long been known that phymosis with adherent prepuce and retained smegma is a common cause of enuresis in boys. It is now being discovered that adhesions of prepuce to clitoris, with retained smegma, is a not infrequent cause of enuresis in girls. Dessau reports several cases cured by stripping the prepuce from the clitoris.—*Clinical Recorder.*

Anal Fissure.—In the great majority of instances anal fissure can be cured in ten days by thorough divulsion of the sphincters followed by applications after cleansing twice a week of balsam Peru or a three-per-cent. solution of silver nitrate.—Gant, in *Langsdale's Lancet.*

Addison's Disease.—Two hitherto undescribed symptoms are intolerable pruritus and the presence of numerous wart-like elevations scattered over the surface of the skin.—Renner.

Reflex Cough.—This in children is usually due to adenoid growths, follicular pharyngitis, or hypertrophied tonsils.—*Medical Times.*

Matrimonial Sterility.—Graefe claims that fifty per cent. of all cases are due to azoospermia.

The Medical Age.

VOL. XV. DETROIT, SEPTEMBER 10th, 1897. No. 17.

Original Articles.

THE STUDY OF GALL-STONES.*

BY JAMES SAMSON, M.D.

This paper is so certain to display an almost absolute poverty in anything that could pretend to the slightest claim for originality that the writer should at the very outset put in his apology for presenting it. But the subject is so full of interest to both the physician and the surgeon that an annual discussion of it might prudently be considered always in order. So long as two of every ten men and five of every fifteen women past the middle age of life and many of still younger years are the victims of this abnormal condition, and so long as there is at least some danger constantly hanging over every man, woman, and child thus affected, the question of the study, diagnosis and treatment of gall-stones will always be full of interest. Nothing else can produce more serious or more sudden illness; nothing else can endanger life much more certainly; and in few other conditions can the real facts be more easily overlooked than in this. A large smooth gall-stone may pursue its entire journey without causing a moment's distress and make its first signal at the sphincter ani, while a small one may produce an agonizing shock ending in death before it has passed half through the cystic duct. A hundred, perhaps a thousand, stones may jostle each other as harmlessly for months and years in a gall-bladder as do the pebbles in a gizzard; but the victim of but a single one may be called on in an instant to endure the fiercest torture known. More than one imperfectly accounted for death could have been traced nearer to its cause by an exploration of the gall-duct; and angina pectoris may, I suspect, have stood sponsor more than once for a mishap that occurred below the diaphragm.

I need make no special reference at this time to the varieties, numbers, sizes, colors and constituent elements of gall-stones; all these are familiar to every practitioner and almost every author has recited all the facts relating to all these particulars. What is of much more interest is anything that may point in a preventive direction, and here we stand in a position not very much in advance of our predecessors of a hundred years ago. What is the real cause of the formation of biliary calculi? Can the true source of their existence be certainly traced or their formation be definitely anticipated? Are increasing years and failing assimilation essential elements in their existence? They are not at all uncommon in youth, and I have during the past month secured a large number of stones from a young girl the very picture of health and living a very active life. Women past middle age with a tendency to obesity seem especially subject to this misfortune; but fat old men with more voracious appetites and worse habits seem wonderfully exempt. Is it the climate of Russia or the fat in his diet or his gluttonous mode of feeding himself that makes the peasant of that country peculiarly subject to this disease? Is it true that the listless life of the dweller in hot climates does not endanger him, because of the lessened amount of animal food he consumes? Is it the imprisonment of the convict or his monotonous bill of fare that makes him the prospective victim? Is it his native energy and activity that makes the wild animal exempt until his captivity commences? Is it known whether a race of Indians living in a portion of the

*Read before the Wayne County (Michigan) Medical Society.

South American continent and subsisting absolutely on animal food are especially subject or at all subject to gall-stones? Is it true that authors are in possession of the real facts, who insist that tight lacing accounts for woman's disadvantage in this respect? Or is it proven that the woman or the races who lace the tightest are the most unfortunate? And what answer is this to those who use the Esmarch bandage to facilitate the passage of the calculi? Or is it true—and I ask this question because I have not read extensively enough to have seen it asked anywhere else—that one of the great first causes of the original abnormal and unnatural crystallization of any of the elements of the bile in the gall-bladder is the want of fluid in the system?

We know now—what our ancestors failed to discover—that the bile is perhaps entirely excrementitious and as dead to further usefulness and more deadly in its retention than is the urine in the bladder. We know that nature's method is to rid itself of every atom of both as speedily and certainly as possible. We know that there is a true normal condition in active life with which we can contrast all others, and thus to a greater or less extent regulate the functions of our existence. We know to a definite approximation the daily products and demands of our organization, and that wide departures from either eternally mean disaster. We know that every breath we breathe comes back laden with the liquid that we swallow. We know that a hundred million pores carry every day to the surface of the body more than pint a of water that went in by way of the stomach, and that the skin must have this pint to keep it human. We know that the secretion of fifty ounces of urine each day is absolutely essential to the safety and physical welfare of every adult, and that he must drink every ounce that ever reaches the bladder. We know that the liver secretes or excretes every twenty-four hours a pound of bile, and nearly the whole pound is only water, all coming from the common source. And we know as well that while this daily aggregate of ninety ounces is demanded to carry on the work of a complex organization whose functions can in no wise be tampered with, this amount is perhaps more than double that imported into the system of thousands of those suffering from or likely to suffer from gall-stones. The average woman takes into her stomach less than forty and certainly less than fifty ounces of fluid per day. The prisoner in his cell drinks vastly less than he did in other days, and the animal in captivity cares less for drink than when he ranged the woods all day in quest of food. The freezing Russian in Siberia drinks less by far than does the native of Brazil, and the vigorous youth drinks more than does his sire. In half the race, a fragment of almost any foreign body dropped through the urethra into the bladder would soon be the center of a growing stone, and in the very pelvis of the kidney the new formed urine saturated with salts can start their crystallization with no better nucleus than an epithelial cell. And why shouldn't the bile when saturated with *its* salts excite the sensitive lining of the sac that contains it as easily as abnormal urine disturbs the coating of the bladder, and just as easily provide a nucleus and begin the work of crystallization? For the gall-stone after all is but cholesterine crystallized, and all its other elements of lime and iron and kindred matters are only accidental adjuncts. And so to the physiologist I venture the suggestion that to withdraw from the subject of his experiments a considerable portion of its daily liquid for a time and then to harmlessly introduce into the gall-bladder some foreign fragment will be to secure a calculus perhaps as certainly as the little wooden crosses sent to the salt tanks come back concealed by sodium chloride crystals.

Nothing that I have said in this direction, however, is intended to even hint that excesses in diet, failing powers of assimilation, unwholesome climates, or even individual idiosyncrasies may have nothing to do with the formation of hepatic calculi. Pettit thought he had established a heredity in the history of one particular family, and though it seems most unlikely that he could be right, we all have seen some striking instances in the whims of Nature and the coincidences she has produced. I have recently found a triangular pupil that has already followed three generations, and one could scarcely look for a more astonishing freak. A gastric catarrh may trail a man and his descendants

for a century; and I have listened to Van Buren declaring that he had traced a uric and lithic diathesis back from to-day to the settlers of New England.

But what shall we do for the patient who has a gall-stone just starting from its birthplace toward the duodenum. From the gall-bladder to the common duct is only an inch, but it is here that the stone is when the agony is at its height—among the spiral convolutions of the lining membrane of that short but somewhat tortuous tube. Once in the common duct it will slowly and more painlessly pursue its journey till it perhaps lodges if large enough just outside the duodenum, where it may remain for months and then fall, sometimes into the bowel and sometimes into the hands of the surgeon who has reached it by one of the most critical operations known. If the case is a typical one and the torture at its zenith, relieve the pain and complete the diagnosis at your leisure, is my own motto. Morphine and the hypodermatic syringe, perhaps the deadliest combination known to civilization, are in their glory here as they are nowhere else. Give morphine and give it freely, give it with the syringe, and give it quick. The patient may be in a collapse or in a convulsion before even this can be done, and the absorptive powers of the stomach are so uncertain at such a time that the fact should never be forgotten. But I have a careful friend of wide and long experience whose sovereign remedy is a drachm of chloroform shaken in a bottle with the white of an egg and given at a dose. The inhalation of chloroform too may be sometimes necessary, a large dose of chloral in the rectum never.

But the spasm *will* subside and the calculus fall back into the gall-sac, or slip through into the duodenum and all will be peace with only a tired soreness left, and the diagnosis will be completed, and the doctor will sometimes call it gall-stone, and sometimes neuralgia, or lead colic, or angina pectoris, or renal calculi. It is the result of all my experience that on this special occasion it is most important to be right. Name the disease and find the stone is my advice. It is back among its fellows or somewhere (unless escaped) where it or its companions will make trouble some other day, and if a mistake has been made, the last end of that doctor, so far as one household is concerned, will be infinitely worse than the first.

It would be too much of pedantry to talk of all the symptoms here, but the awful agony so often unlocated, the slow pulse and the expression of mortal terror come before all others. There may be pain in either shoulder, or in the scrotum, or in other most unlikely spots, but with these three symptoms I say again suspect gall-stones; and where there are many of them it would seem likely that the new phonendoscope might help to locate the nest.

I prefer at this time to make no special reference to the surgery of the disease, but every patient who habitually suffers from a colony of these calculi and every patient whose health is endangered by a single stone remaining lodged in the common duct should be turned over to the surgeon, who with asepsis and his knife and a Murphy button may safely be entrusted with thousands of cases that made a deal of trouble in other days. The triumphs are both numerous and brilliant along this especial line.

To the practitioner I would like to express my emphatic protest against the nonsense of pretending that he knows of anything that will dissolve the cholesterine stone already formed, and I would particularly direct this statement against the chemical and pharmaceutical fallacy of waterlogging his deluded patient with olive oil in the vain hope of reaching the enemy in its stronghold. Increase his daily consumption of potash and soda salts and physical activity, and let him find his potash and soda, if he prefers it, at the Carlsbad and Vichy Springs; but let him know as well that the richest source of all these salts is in the green vegetables and juicy fruits of his own country, and that he may drink his water from any stream that has not made a long course over a lime-laden bottom; but that he needs to drink as he would if he were at some far-off watering-place, or as the horses drink, or as the pigs or sheep or any of the animals around him, whose instincts have taught them to follow the dictates of nature with a fidelity that the refinements of our civilization have made us forget.

Windsor, Ontario.

CAUSES OF STERILITY IN THE FEMALE.

BY C. C. MAPES.

The question of sterility in the female has given rise to considerable comment, criticism, and controversy from time to time in the history of medicine. Modern investigation has not been of such character as to throw any material light upon the subject, and it is merely to call attention to some of the most frequent causes of relative and absolute sterility that this paper is written.

All are familiar with the story of how "Hannah prayed for a son," and with the result her "womb was opened"(?) and she gave birth to a male child. In the present generation it is safe to say that the majority of married females earnestly pray that they be *not* impregnated, that their wombs be *not* opened, and some of them use every known means to prevent conception.—And this fact, I am led to believe, constitutes an important factor in the production of permanent sterility.

Most writers agree that of the causes of sterility the most frequent is some abnormal conformation of the female genitalia, dependent perhaps upon numerous pathological conditions. First, the channel must be unobstructed for the passage of the ovum downward through the *ductus Fallopii* to the uterus, where it may encounter the sperm cell in its upward course; second, the vagina and cervix uteri must be patulous so the sperm cell may ascend and come in contact with and impregnate the ovum. At this point an important query suggests itself: Whether impregnation takes place within the cavity of the uterus proper, or in the Fallopian tube,—for my own part I believe that normal impregnation always takes place in the uterine cavity, that when it occurs elsewhere it is abnormal and accidental; in my opinion, when impregnation occurs in the Fallopian tube at any considerable distance from its uterine extremity (ectopic pregnancy), it is almost certain to rupture into the peritoneal cavity, a danger well understood and appreciated.

In enumerating the causes of sterility it is best to begin where normal fecundation should occur. All deformities or abnormalities of the uterus may, and doubtless often do, lead to absolute sterility, and such deformities may be either congenital or acquired. Of the congenital we have total absence of the organ, which occurs not infrequently, also a condition of infantile development, either of which precludes fecundation. Next the uterus may be apparently normal in size and position, but bifurcated, with either a single or double cervix, with diminutive orifices, the passage or passages being so tortuous that the vitality of the sperm cell is insufficient to gain entrance and thus encounter the ovum.

Of the acquired causes displacements are the most common; they may be anteflexions or retroflexions, anteversions or retroversions, with various modifications of either, producing cervical stenosis, either partial or complete. Again, women with enlarged uteri are usually sterile, probably because of pressure upon the cervix and consequent obliteration of its lumen, thus obstructing the ascent of the sperm cell. The same is true of prolapsus uteri.

Diseases, such as endometritis, metritis, menorrhagia, metrorrhagia, gonorrhœa, leucorrhœa, septic conditions, etc., are given as causes of sterility, though when these conditions have been relieved conception sometimes takes place. Pregnancy has been known to occur in the presence of septic endometritis, profuse leucorrhœa, and other uterine diseases, though it must be admitted this is the exception rather than the rule. Tumors of the uterus, of all kinds, also may induce sterility, yet pregnancy has resulted despite some of these complications. Conception occasionally occurs in the presence of large, multiple uterine myomata, with aggravated displacement of the uterus, and interference with the cervical structures—strange as it may seem—but such cases are usually terminated by early abortion. If pregnancy advances to full term serious complications are apt to accompany delivery.

Abnormalities of the cervix may cause sterility by preventing entrance of the sperm cell to the cavity of the uterus—for instance, marked elongation, obstruction by tenacious mucus, cervicitis, etc. Mechanical obstruction of the cervix from pressure of uterine displacement and tumors has already been mentioned.

The ovaries may be congenitally absent; may be prolapsed, displaced, or mechanically separated from the fimbriated extremity of the tubes, so that the ovum cannot be grasped and carried to the uterus; oöphoritis, cystic, cancerous, inflammatory, and degenerative diseases of the ovaries may interfere with the production of ovules and thus contribute to sterility. Ovulation may be normally accomplished, yet, because of conditions already described, the ova never reach the uterus to receive the sperm cells.

Several conditions in and about the vagina may induce sterility, and these likewise may be congenital or acquired,—atresia, partial or complete, or an imperforate hymen, for instance. Again, the vagina may be abnormally short, may be obstructed by labial hypertrophies or tumors, and thus produce sterility by preventing proper consummation of the sexual function; or an abnormally long or large vagina may lead to the same result because the sperm cells are deposited at such a distance from the os uteri that they fail to gain entrance to the uterine cavity. Perineal lacerations and deformities resulting therefrom may be such as to change the axis of the vagina Tumors, cystic or solid, within the vagina, enlargement of the vaginal veins or glandular structures, may cause deformity of the canal — varicosities in this situation, while not common, are occasionally seen. Glandular enlargements, usually as secondary manifestations of well known primary causes, are not infrequent.

Prevention of conception and destruction of intra-uterine life are practises which prevail in all countries to greater or less extent, and in all grades of society. Many women who might otherwise be capable of bearing children are sterile because of these practises; they are potentially fertile but practically sterile. Aside from the moral depravity engendered by the practise and perpetuation of habits destructive of the sanctity of married life, a certain physical or physiological degeneration seems to take place, which has a tendency to render such women actually incapable of being impregnated. Reasoning *a priori* there is probably an excessive hyperæmia of the reproductive organs, the result of the woman's own acts, which makes conception unlikely; moreover her mental and physical health is undermined and impaired to such an extent that she is no longer capable of becoming a mother. The ultimate results, therefore, of such practises must not be underestimated in considering the question of sterility.

Again, vaginismus may be so marked as to prevent coitus, and the hypersensitiveness is sometimes so intense the least attempt to introduce the male organ (or even the touch of the finger) induces such violent spasmodic contraction and rigidity of the muscles as to effectually close the vaginal orifice. Vaginitis, either chronic, the result of constitutional conditions, or specific, usually renders a woman sterile; or the character of the vaginal secretions may be so altered as to destroy the vitality of the sperm cells before they can reach the cavity of the uterus to impregnate the ovum.

Excessive venery and masturbation have been given as prominent causes of sterility, and though both are undoubtedly entitled to some consideration, it is probable their importance as causative factors has been largely overestimated, for fresh recruits to the ranks of the *demi monde*, with whom excessive copulation is the rule, usually become pregnant several times before they are rendered sterile from other causes; and girls who have been known to masturbate for an indefinite period have married and given birth to offspring.

In some cases there is a relative sterility, seemingly the result of incompatibility or lack of sexual affinity—*e.g.*, a woman who has been married for several years without becoming pregnant, after the death of her husband may marry again and promptly become *enciente*.

Syphilis, tuberculosis, chlorosis, obesity, have been mentioned as causes of sterility, as have also other constitutional conditions which are so vague and remote as not to merit recognition in treating of the determining causes. It must be recognized, however, that any debilitating disease, or one which impoverishes the system and reduces or depletes vital energy, has a more or less definite influence as a causative factor. Says Doctor Wathen:*

**Medical Gazette.*

Since the happiness of married life often depends on having children, as also the perpetuation of names and families, and the descent of property, and permanence of dynasties and governments, the physician should have a practical knowledge of subjects relating to child-bearing. Sterility is rapidly increasing in all highly civilized countries, and in Great Britain there are about five hundred thousand married women who are childless. . . . The moral philosopher can scarcely distinguish between the sin of preventing conception and that of producing abortion; and there is probably nothing about which the moral nature of woman is so depraved as that which concerns her duty in child-bearing. . . . She is often a respectable member of society and of church, and will reason intelligently upon other subjects, but is deaf to all arguments upon this. Sacred history is replete with proof that the evil practise of preventing conception and of causing abortion has been condemned from the earliest history of the world, and the Old and New Testaments are full of evidence of the will of the Creator upon this subject, and the punishment of its violation. God's command to our first parents, "Be fruitful and multiply, and replenish the earth," has been repeated to successive generations by Divine authority; and the severe reproach of the barren woman in ancient times caused the Hebrew mother to cry in agony for a son. But the mother of our *modern civilization* often cries in agony because she is, perchance, compelled to bear a child. . . . Women in so-called refined, religious, and cultivated society, being controlled by desire for social pleasure, and for position and wealth for their children, practise prevention more than women in the obscure walks of life. *Their daughters are taught nothing about the anatomy or the physiology of their generative organs, but are trained to abhor offspring, and are told how to avoid becoming pregnant.* The higher education or *brain-cramming* of girls nowadays, *with the absence of exercise and other hygienic measures, and the reading of sensational or love novels,** destroy their power to bear well developed and healthy children, or to supply them with enough nutritious milk for the natural period.

As woman ascends in the scale of education and refinement, child-bearing becomes more difficult. She is more sensitive to pain, and bears children with greater cranial development. Her mode of dress distorts or displaces her thoracic, abdominal, and pelvic viscera, and so weakens the abdominal muscles that the auxiliary forces in parturition are very much impaired.

In the British peerage there is one sterile woman in six and a half marriages, while there is but one sterile woman in ten marriages in the agricultural and seafaring people. In one hundred marriages in the British peerage four hundred and fourteen children were born, while in one hundred marriages not heiresses, there were born six hundred and twenty-four children. . .

One-child sterility exists in one out of thirteen marriages. The average time from marriage to the birth of the first child is seventeen months, and between the birth of children nineteen months, and women upon an average bear children from twenty-five to thirty-eight years of age—less than fifteen years. As one in thirteen women bears the first child after having been married three years, no woman should be considered sterile until the fourth year of married life.

The so-called spasmodic dysmenorrhœa may cause sterility, since of three hundred and thirty-two women absolutely sterile one hundred and thirty-nine suffered from this trouble. Obesity, confinement, sedentary habits, changes in climate, and interbreeding are causes of absolute and relative sterility. . . .

As the ratio of relative sterility and of abortion is less in women who marry several years after puberty, we should advise against too early marriages. Fecundity and fertility are greater in women who have completed their physical and mental development, and as adolescence usually continues until about the age of twenty years, it is best to defer marriage until after that time.

In some countries, according to statistics, if a woman remains childless for a certain period the fact is regarded as sufficient ground for legal separation from the husband, provided he so desires, no matter what may be the cause of sterility. This seems manifestly unfair and unjust to the female, as she may be without fault in the matter.

Graefe* gives as causes of sterility:

Anomalies of the hymen or malformation of the genital tract; a very large vagina can also be the cause of sterility, as the sperm flows out immediately after coitus: Vaginismus: Excessive acid reaction of the vaginal mucus, which causes the spermatozoa to lose power of motion: Narrow external or internal os, anteflexion, retroflexion, endometritis, gonorrhœa (especially with involvement of the adnexa), neoplasms: Tuberculosis, syphilis, chlorosis, and obesity.

Recent medical literature, so far as I am able to ascertain, contains little or nothing in relation to sterility, especially its various reputed causes, nor can I find anything new suggested in the way of treatment.

In a case in Kentucky a plan of management was followed somewhat unique in character: A young woman, aged about twenty-two years, had been married one and a half years. Sexual intercourse had never been satisfactorily accomplished, because of an intense and persistent vaginismus which re-

* Italics mine.—C. C. M.

* *Centralblatt für Gynäkologie*, 1895.

sulted upon the slightest manipulation of the external genitalia. The woman was repeatedly anæsthetized and treated by the introduction of glass bougies, gradually dilating the canal, in the hope that the extreme hypersensitiveness of the parts would thereby be overcome, and later forcible dilatation of the vaginal inlet was practised under anæsthesia, all with negative results; vaginismus continued despite all treatment. As a *dernier ressort* she was anæsthetized at the suggestion of the family physician, and the husband allowed to have sexual intercourse with her while under the influence of the anæsthetic, with the hope that pregnancy would result and that the birth of a child would afford relief to the distressing vaginismus. She became *enciente*, and was delivered at full term of a living child, but the muscular spasms continued up to the time of delivery, absolutely preventing the usual digital examination to determine the presentation at the onset of labor. The subsequent history of the case is unknown, but it is presumed the result was as hoped for.

Where absolute sterility results from such obstinate and intractable vaginismus, the means employed in this case, while hardly to be recommended as a general rule, may be deemed not only justifiable but wise and proper, and may also be productive of the desired results.

Louisville, Kentucky.

FATTY ILLS AND THEIR MASQUERADES.

(VII.)

BY EPHRAIM CUTTER, M.D., LL.D.

A student once said he was determined to find out what electricity was, but I doubt if he succeeded, since no one understands the unseen essence or the effects it produces—light, heat, motion, emotions, chemical actions. The word is of Greek origin, meaning amber, because amber was first used to demonstrate electricity by friction; but amber is temporal, while the eternal fact, electricity, is invisible.

I think it is a safe thing to say that electricity is an ether and a mode of motion, like light and heat. It is not life, as some claim, because it is manifested by lifeless things coming together in unequal physical or chemical action; and though life has electrical manifestations, electrical manifestations are not life. How electricity acts as a curative agent is a mystery; for instance, it is difficult to understand how electricity cures uterine fibroids; but this idea is impressed on me as I write, that possibly the wonderful varieties and adaptations of electricity may be useful as forms of motion in cases of fatty ills, where motions are impeded and retarded. My formula is as follows: *Life is made up of motions and emotions. Some diseases are caused by retarded or impeded motions. Electricity is a form of motion biologically penetrating. Hence electricity is a remedy for some diseases.*

Electricity pervades like space; some even affirm its presence in water makes it a constitutent part of that element; but because a piece of copper and a piece of zinc touching each other produce electricity it does not necessarily follow that copper and zinc are made up of electricity.

As fatty degeneration of muscles is such a malevolent agent it is interesting to read that "the development of the muscles of the body, in a way other than by physical exercise, is made possible by the use of galvanism. A regular application of the electric current to any particular set of muscles in the body often results in their weight and strength increasing as much as forty per cent."

The kinds or forms of differentiations of medical electricity are: Static, Faradic, and Galvanic.

Doctor Robert Newman, of New York, the medical electrician, inventor of methods for electrolysis of urethral strictures, and a gentleman advanced in life, told me he had received the greatest benefit from static electricity. It is easy to see that sparks drawn out from different parts of the body must make these parts interstitially move as to circulation and functions, and on this account I think favorably of this kind of electricity in fatty ills.

Faradic electricity, or the induced current, is the variety in general clinical use, but I have never been able to get much satisfaction from it. Twenty-five years ago the late lamented Doctor Louis Elsberg, of New York, whose learning in physics and physic was very great, affirmed that when electricity did good

twenty times, the faradic current did good once, and the galvanic nineteen times. Immediately I chose the latter, for life is too short to waste nineteen out of twenty chances to do good with electricity. I owe much to Doctor Elsberg for this dictum But it must be admitted the faradic is more popular, and an eminent electrician informed me he had to use it because patients were not satisfied unless they felt the current. This evidences the man who desires to succeed as a physician must study human nature, and there should be a course of lectures on the ethics of handling cases. Nevertheless it is too bad the frailties of humanity should so interfere with its welfare that where nineteen cures should be had only one poor sufferer is relieved. The history of clinical electricity would have been far better if galvanism had always replaced faradism! Again, Terry d'Etoille, in 1876, asserted that the faradic current does not influence the unstriped muscular fibers, but that the galvanic does. Althaus reports the faradic current induces fatty degeneration of the striped muscular fibers, and he gives a drawing of such fibers through which faradic currents have passed, whereby they have mostly been reduced to fat globules, with no semblance of their former structure. Faradism acts only through the nerves to contract muscles. The moral of all this is, Do not employ the faradic current in fatty ills.

Althaus also declares the galvanic current does not fattily degenerate the unstriped muscles, but strengthens them. Galvanism contracts muscles through the nerves, or, if they are paralyzed, contracts the muscles without nerves! To repeat: where twenty cures occur by electricity, nineteen are due to galvinism; and acting on the foregoing principles, I use the galvanic current, and as yet have had no reason to be dissatisfied. The great objection, aside from its not being felt, is that alleged by those who have stood at the head of medical electricism, viz., that it has no power of penetration; but the facts are that in applying the positive pole—a gold needle—to a bony outgrowth in the meatus auditorius externus, the skin immediately assumes a deep red color that subsides on the removal of the electrodes; that when both electrodes are buried four to five inches deep in and through the abdominal walls, and a uterine fibroid and a voltameter is intercalated, the current traversing the tumor promptly sends the index needle to 1.70 volts; that in a like case of galvanism of a uterine fibroid the pulse would fall to eighty per minute when the plates were removed from the solution, and that the pulse would rise in one second to ninety when the plates were reimmersed; that Professor H. M. Field, M.D., of Dartmouth College, who witnessed the latter, emphatically remarked he knew of no agent in the materia medica that would so quickly raise the pulse as was done by galvanism. The facts related form the basis on which galvanism is recommended for fatty ills; and I am more inclined to do this, since the process of cell and tissue nutrition approaches galvanism in the minute movements of metabolism. Electricity must be present to all persons, since the frictions, motions, and chemical actions of biology develop it; but some evince more animal electricity than others. The friction of winking my eyes in the dark produces flashes of light like a galvanic battery. Some think that electricity is everywhere present, hence the sparks that come from the body are the result of static electricity; others, that the earth is charged with it, from its intensely rapid motions of a thousand miles a minute in its orbit, and a thousand miles an hour on its axis, besides the intraterrestrial chemical actions, assisted by incandescent molten platinum, silver, gold, iron, and other metals making up the central mass of the globe. Be these things as they may, they do not annul the fact that galvanism clinically applied does quicken and promote arterial, capillary, and venous circulations, which operation is a good remedy for fatty ills, well worthy of trial, but not to take the place of proper feeding, which is a *sine qua non.*

A good mode of application is by baths. Neither is it necessary to have expensive electrodes. Silver spoons make good conductors, simply winding the connecting wires around the shaft, and if desired a sponge may be put in the bowl, held there by a silk thread. If a flat surface is sought, the handle of a tablespoon will furnish it. I usually employed my own batteries, on whose rods and connections I spent much thought. Galvanic

action is easy to get, but the great difficulty is to control and keep it by good connections. The common screw and socket is not as good as the cam connection, for in the socket contact is tangential, while that of the cam is flat surface to flat surface; also the fewer connections the better. Platinum foil makes the best connection because it is not acted upon by the current so much as other metals. Sometimes, with all care, a battery will not work, and one cannot tell where the trouble is, but if allowed to rest over night it will generally work again.

There have been many claims for electricity which could not be sustained, nevertheless it is an admirable agent, one whose therapeutic claims would hold better if it were not for the wordy and dogmatic assertions and commands of those who pose as "knowing all about it." I think I have a right to speak thus, as I too have been a pioneer and obtained, midst opposition if not reproach, results that have stood the world's tests for more than twenty years—results which were predicted to be impossible and postdicted as not having had an existence. From the close kinship of fatty and fibroid degenerations I am inclined to attribute the success of galvanism of uterine fibroids to the quickening and forwarding of the circulations, functions, and nutrition by the constant current, not excluding proper feeding nor the other auxiliaries named. I would recommend large plates for batteries, as giving less pain than the small ones, or in other words quantity in place of intensity. Small and multiple cells give more pain and are more caustic. It is undesirable to break down the tissues in chemical necrosis directly, but one should so stimulate the circulations that nutrition will go on, and cease to lay down abnormal tissue, whether fatty or fibroid.*

Now regarding the use of galvanism in fatty ills: So far as possible it should be applied to the local lesion. For the heart, one electrode may be placed on the præcordium and the other on or under the back opposite.

---

*Some practical points about making batteries galvanic. Any two different substances on which chemicals act differently in degree, which decompose differently, will do for a battery. In my pupilage I made batteries from layers of oranges and lemons separated by bibulous paper; also from beef and mutton. A zinc and copper battery, such as I would call No. 1 and run with water, will decompose the same element. A good battery for fatty ills can be made of carbon and zinc plates, six by nine inches, with a glass tray or crock to set them in, so that they will not touch. Use a solution made of saturated bichromate potassic or sodic water, and add one part of sulphuric acid to ten of the solution. Connect wires with plates.—A good way to make connection with the carbons is to plate them with copper; the wire can be then easily soldered to the copper plating and covered with paraffin. I have suffered because the workmen bored holes in the carbon, and filled the same with lead or solder to which to attach the binding posts. It was a strong, nice-looking connection, but allowed little of the current to pass. It is well to have the cell shorter than the plates, as the connections are kept out of the solution, and there is less danger from the creeping of the salts. My son, E. P. Cutter, has made a very light and good battery from arc-light carbons; a block of hard wood 3x4x2 inches, bored with holes near the edges, receives the carbons tightly, the tops of which are wound with copper wire, and soldered on for conductors; a stout copper wire is wound around the edge and fastened about the binding post at one end of the block, which makes a solid hold on the carbons, which are eight in number and six inches long; the zinc plate is 6x3x⅛ inches, and to its top is soldered a two-inch loop of copper wire whose ends run uppermost through the block, one being prolonged for connection; the cell is a glass bottle cut off at the top. With such a battery, carbon pole in vagina, and zinc pole on abdomen, a myofibroid of the uterus, larger than a child's head, was softened, reduced in size, and the uterine hæmorrhage entirely checked by a dozen applications of five minutes at night on going to bed.

A large battery that I term No. 3 has about thirteen square feet of surface, and measures twenty-seven amperes: it is employed for uterine fibroids by the electrodes being plunged through the abdominal walls and the peritoneum. This operation sometimes succeeds with from one to four applications, but it is so severe that few dare to do it. Battery No. 2 has carbons ¾x½x6 inches, zincs ¾x⅜x6 inches; the connections are strips of copper ½x⅛x2 inches long, which at the free ends are bent into a broad hook—as occurs in shaking hands. It is easy to separate the strips, polish them with sandpaper, and thus freshen their surfaces. The convex surface of the hook prevents the dust from readily entering the contact. The cell is made of sheet lead, which fits close for protection, and requires a new solution every time it is used for galvanic caustic.

These details may seem to be out of place, but they have cost the writer much time and thought and have been valuable to him.

—The silver tablespoons used as electrodes easily slip under the clothing. For Bright's disease of the kidneys, put one electrode over the abdomen to either side of the navel, and the other electrode over the loins. For apoplexy, one electrode over the nape of the neck, and the other on the top of the head; this should be used with care, but common sense will make easy the details of the applications; the more the quantity the better.

Says Professor Tarchanoff, of St. Petersburg, who has been experimenting on the subject of music from a purely physiological standpoint: "It relieves muscular fatigue in man, helps to drive out carbonic acid in dogs and increases their consumption of oxygen and also makes them perspire." He thinks it may be regarded as a serious therapeutic agent. Now to apply this to fatty ills: Music is harmonious motion and causes forms of motion, invisible but sensible, as much as if they were visible. Severe toothache is an invisible painful emotion which has no weight nor color, does not occupy space, but sometimes causes motions of air that result in unpleasant sounds and has undoubtedly a real existence. Music is an enjoyable inspirational pursuit, whether listened to or performed. It affects emotions. Emotions affect circulations and secretions. Bad music is not enjoyable, and is productive of depressing effects unhelpful to the fatty ill with retarded and impeded functions. The effect of inspirational and enjoyable music is to quicken the functions, especially the circulation, hence it acts as a remedial measure.

"I always get warm when I play the piano," said a lady. Major military music quickens the blood and emotionally stirs the courage of soldiers. The boy who whistles when going by a graveyard at midnight inspires his courage. Music tones up the sympathetic and cerebral nerve centers, and thus facilitates their work. My father, the late Benjamin Cutter, used to gently whistle to himself when he had a perplexing case to treat. Sailors sing when they do heavy work. The soul is moved and then strengthened by music. A stirring, strong soul means better circulation of blood, lymph, and glandular secretions. Music revives the memory. There are some notable instances of this. Music is thought by some to promote longevity, and with good reason, since fatty ills, normal in old age, are dependent upon the flagging powers of life. Music should be expected to relieve those ills and thus keep off the infirmities of old age.

The Reverend Peter Kimball died at Perth Amboy, New Jersey, June 15th, 1892, and had he lived to March 5th, 1893, he would have been one hundred years old! I visited him about two months before death. He was a small, spare, bright, affable person with iron-gray hair, not bald, not overstrong, though he had life enough to drum with regulation drumsticks on a bag of sand while I sang "Hail Columbia," but as I did not sing it fast enough to suit him he sang a military march and drummed away merrily! He also played to me on the fife. He had drummed before the war of 1812! His memory was good for late and early dates. He could solve problems in cube root, and was more accurate as to his age than I was. He insisted that music was one reason of his longevity in the use of the fife for lungs, and drumsticks for heart; and I believe he was correct. Playing the fife pleasantly expands the chest, promotes the circulation of air in the lungs, hence gives more vitality to the body, and helps the retarded and impeded circulations; the drumsticks played, he said, would arrest the palpitations of the heart when he was very ill therewith.—No doubt their music inspired him with its emotional force such as the heart needs at these crises, hence it is very probable he was right in his estimate of music and longevity, though there were other elements as remarkable: for instance, he had totally abstained from tea, coffee, and tobacco since 1830, and from rum since 1817! Had he been able to obtain proper food it seems as if he would have rounded out a full century of existence! There was a sad side to this centenarian; all but a few of his kin were dead; he was subject to petty annoyances and grievances, such as a cold, sunless room with a northern exposure; no bell or electric call; and he had other vexations which I in vain tried to relieve. But this does not blunt the point that music helped his longevity.*

---

*See "Music and Longevity," *Scientific American Supplement*, September 16th, 1894.

In 1888 Professor Dogiel published at Kazan, Russia, his experiments as to the effect of music on the circulation: Dogs were made insensible and an artery laid bare, a platysmygraph then applied, and tracings made as by the sphygmograph; then other tracings were made during whistling and instrumental music, when the tracings presented heavier curves and markings. The same experiments were made on man by enclosing the right arm, forearm, and hand within a glass cylinder filled with water kept in by a tight rubber collar about the arm. By ingenious diaphragms arranged in conical receptacles the impulses of the heart upon the whole limb were conveyed to a tracing cylinder, before, during, and after the performance of music on clarinets, flutes, violins, and whistles. The results in the heavier lines and increased curves were the same as in the dog experiments. Until these results are upset by some one who has repeated them in like manner, I think they should be received as proof that the circulation is quickened and increased by musical sounds acting on the nerves and heart.

The relations of music and medicine have received considerable attention, and the literature thereof goes far back into antiquity and is greater than one would suppose. In evidence of this statement I refer to young David employed to play the harp to allay the madness of King Saul. In the "Haven of Health," published in London by a schoolteacher in 1579, music is put down as one of the remedies to be used to preserve health. The following extract is taken from "Dieta Literorum:"*

Quid Musica in excitandis ac diversimode formandis animi commotionibus; his caleat in aprice est. Haec mentem componit; curas et tristiti pellit; labores lenit; Spiritus recreat ac excitat.†

As evidence this subject is attracting attention, the fact may be cited that Canon Harford of Westminster Abbey has under his care a St. Cecilia's Guild which offers music as a medicine to the sick in London; and I have in my possession a letter in which he speaks of the good work already done. He uses female voices. It has seemed to me that, as voices would be difficult to be had on call at apothecaries, phonographs could be prescribed, and these would give the right lullabys correctly, would play softly, and could be carried about by unskilled hands with but little trouble and less expense than skilled voices. If this part of my subject *seems* unpractical, still it is an argument for those who have fatty ills coming on to make use of all musical opportunities, for there is no doubt that music directly and indirectly relieves the diseased conditions so often referred to here.

But it should be remembered that not all that is called music would be useful as a medicine. There is music and music; also the standard varies with the individual: For instance, the late James G. Blaine, who died of fatty degeneration, hired hand-organ men to play before his house daily during his illness; but if I were ill hand-organs would make me worse. The crooning of an Irish mother might soothe her own sick babe, but keep another one awake. Music played by artists, but with blaring horns drowning the strings of the orchestra, would be unsatisfactory. Canon Harford speaks of lullabys and anthems. I think that the *andante* and *andantino* movements of Beethoven's, Mozart's, and Haydn's trios for the piano, cello, and violin are the best classical music for fatty ills. Such songs as "Annie Laurie," "Ye Banks and Braes of Bonnie Doon," "Those Evening Bells," and other soft, sweet, and low musical songs are to be selected. A fine music-box playing in the chamber of the sick is an easy way of testing the virtue of music for the ill; indeed, I would allow patients, if musical, to play on instruments of the violin class, the flute, etc. In walking cases, concerted music may well be utilized to accelerate the functions of their systems.

Though fatty ills can be caused by such medicines as phosphorus in massive doses, there are none I know of which can cure them. Medicines have been well termed the "oils" for the sick body machine, to make it

*An Inaugural Thesis read by John Rottenburger, January, 1724, Eighth Edition, 1729, Section III, Caput. III, page 25, under the head of Air for Literati.

†That music avails in exciting and in many ways forming (molding and controlling) the commotions of the soul is clear as sunlight. It composes the mind; it drives away cares and sadness; it lightens labors; it recreates and rouses the spirits.

"run smoother." So far as this goes they are to be regarded as curative by increasing the circulatory functions. Good vegetable tonics may be resorted to. I like the compound prescriptions, and make use of those made from fluid extracts, though they can be made from good tinctures; of course the physician should satisfy himself as to purity in either case. Here is one:

℞ Tincture cinchona compound, 3 ounces.
Tincture gentian, 12 drachms.
Tincture cardamom compound, 4 drachms.
Liquor Sedans (without sugar, P. D. & Co.), 3 ounces.

From half a teaspoonful to one teaspoonful in a little water at meals.

The above I have used as tonic in cases of fatty ills associated with pain; at my son's request Messrs. Parke, Davis & Co. made up the last item, composed of viburnum, dogwood, and hydrastis, without sugar and with glycerin; it is better borne than the original liquor sedans.

Salicin is a splendid tonic, a good digestive and antifermentative; it checks diarrhœa usually. Strychnia, too, is a very valuable medicine.

But all of this matter of medicine must be determined by the special case. I could write much about Hoffmann's anodyne, sumbul, asafœtida, iodoform, pyrophosphate of iron, permanganate of potash, etc.; but the practitioner must work out the individual problems before him. Some cases require much medicine; others very little.

Regarding constipation: The laity like to push fruits and sweets to move their bowels, but the movements obtained in this way are at the expense of more or less intestinal fermentation, and are forced by an endeavor to get rid of gas and yeasts, while the constipation is caused by lack of nerve force. Feed the patient by good food and the nerve force will come back and the machine start again. The chemically pure sulphate of soda often acts well; also small doses of fluid extract of cascara sagrada; and some cases need enemata, though I am as a rule opposed to frequent washing of the bowel, as it depletes the body by siphoning from the small intestine the nutritive elements about to be absorbed; only when the patient's large intestine is full of yeasts is it well to wash out the bowel carefully, using some preparation, such as Euthymol, to kill the ferments. It is a good rule also to avoid apollinaris, soda, or other carbonic acid drinks, for carbonic acid gas is an agent which retards and impedes the functions of the system by its direct and indirect paralyzing powers upon parts of the body near and remote. Olive oil and castor oil are not admissible because all fats promote fatty degeneration.

When there is no principle on which to give medicines, then none should be administered. Remember it is Nature who cures by her own powers of normal metabolism, transformation, transfiguration, or metamorphosis; that medicines *per se* do not cure anything. But if Nature furnishes the dynamic force, actual and potential, for them to work with, medicines may be of value.

Special obstacles should always be removed; that is, the obstacles that arise from peculiar constitutions and idiosyncrasies; complicating diseases and conditions should be obviated as much as possible. If there is constipation (excuse the repetition) it should be dealt with mildly, mildly, mildly, until the bowels are open. — If desired, proper proportions of rhubarb, cascara, or aloes may be added to the tonic aforesaid. There must be care in using salines for mild cathartics, as the trouble is that the fatty ill have generally too many salts in them anyhow, and it is unwise to add to the burden. The treatment should aim to reduce all the body systemic salts to their normal proportions, and thus avoid clogging. Massage and the laying on of hands will help constipation by conferring nerve force, a lack of which, in my judgment, is the great cause of constipation.

Again, all the blame because things do not go right must not be laid to the treatment, because lapses and hindrances often come from overdoing in worry, work, or pleasure, which use up the vital force (*dynamis*) needed to run the body normally. Many cases are upset because some great irremediable cause of grief comes to bar out or mar success; and so far as possible the physician should try to avert such cause or causes. It is a good plan to make patients confidants, and make them understand the medical attendant is working sincerely and earnestly (without

deceit) to remove their fatty lesions, and that their help is of vital importance. It does good sometimes to show patients the abnormal morphologies—*i.e.*, fatty epithelia, free oil, amyloid, and albumen. Physicians must be truthful, patient, persevering, firm, and labor in all ways to deserve and inspire mutual confidence. If the patients act as if their minds were reaching out or forth to some other treatment, it is best to settle this by pleasantly offering to relinquish the case.

Sometimes it is well to make patients sign an agreement to be faithful for a certain length of time, say six months or a year. It is not enough to restore a condition of health, but the course must be persevered in to confirm the body systemic in the new ways of normal life. While there is evolution in many things, I opine that the opposite, "devolution," is oftener met with in the practise of medicine; in other words, patients are more liable to retrograde than to advance (evolute); hence patients must be looked after and a good deal of hard work put into the conduct of their cases. Energy and perseverance are required as a rule to honor the medical profession by securing the best results.

The time has come when there should be a better understanding of the way in which cures come. Call the processes of laying down and taking up tissues, which are all the time going on in every living human body (sick or well), metabolism, transformation, metamorphosis, translation, or anything else, nevertheless Nature is at the helm of all vital processes.

But what is Nature? some one may ask. The word comes from the Greek verb *gennao*, to be born; "genesis" has the same root, and means birth. It implies origin from some power not inherent in itself, as a child born certainly comes from and represents, however well or ill, its parents; the child could not exist had not those parents existed previously. In this era of the world it is consonant with time, names, and prevailing beliefs to assert that the power from which what is called Nature is nascent or born, is the Creator and Sustainer of the universe, "in whom we live and move and are."

MELANCHOLIA.*

BY EDGAR J. PENDELL, M.D.

Melancholia is a morbid condition of the human mind to which every practitioner frequently has his attention called, and one moreover he will many times know exists, even though his patient or the patient's friends do not speak of it themselves. When they do speak of it, the first thing they want to know is the cause, what can be done, and what will be its probable termination.

These are knotty problems to answer, rendered so from the fact that the busy general practitioner cannot give the thought, study, and attention to this class of cases that he could if devoting his entire time to the study and treatment of mental diseases. Again, there is such a wide diversity of opinion relative to causation and treatment, as well as the non-similarity of cases and of their final termination. In some of these cases there is merely a period of depression or of gloom which will pass off within a few days, leaving no trace of its existence behind, and this without any treatment; others will continue for a long time in this gloomy, depressed state without any delusions or hallucinations, and finally recover; and yet others never recover under the best management and treatment that can be given. But the class of cases to which the physician's attention is usually called is where the gloom and depression are accompanied by delusions of some kind, usually of a nature which the physician will in a short time recognize as only delusions. Perhaps I cannot do better than to cite a case:

I was called to see a man thirty-seven years of age, and I was to determine whether it was best to amputate his foot or not, it being badly diseased and very painful; but upon examination I could discover no trace of disease of any kind, or even a tender or sensitive spot. The patient next informed me he was syphilitic; yet there was no trace of syphilis either acquired or inherited to be found, and on drawing him out a little more I found no amount of persuasion would induce him to go on the street or even outdoors for fear some one would do him some harm, talk about him, make sport of him, etc.

*Read before Calhoun County Medical Association.

Many times the delusion of these patients will be the loss of a friend, or of money, or some grievous sin they have committed, when on careful inquiry they have lost no friend, and the money, if lost, was so small in amount it could in no way interfere with business. And yet these delusions to such patients seem just as real as though they were positive facts.

What causes are operative to produce this condition of the human mind? What is the human mind? Is it a something, a distinct entity, though not tangible or real to touch, separate and independent of the brain, nerves, and spinal cord, except as they act as media for the transmission of its operations? Whilst I believe this to be true, yet I accept it as I did some axioms in mathematics, as it is a proposition that cannot be demonstrated.

In taking up the probable causes and pathology of melancholia, I feel somewhat like a man groping in the dark for something he cannot put his hand on, and yet he knows it is there, especially after reading the opinions of such men as Charcot, Blanford, Gray, and Spitzka, who say that in many of these cases after death no trace of disease can be found in the brain. It would seem that in these cases the cause is a functional one, not structural; and yet according to the teachings of the best neurologists and psychologists normal brain and nerve tissue should produce normal or healthy action, both mental and physical. If this be true and there be any change, it must be of a molecular nature in the cortex of the brain, or else a change in the nutrition of the brain has taken place; and I am inclined to believe it is the latter that is the cause in the great majority of cases. The tendency at the present time among physicians is to ascribe all these mental phenomena to degeneration of brain tissue. Sometimes it seems as though medical opinion swayed to and fro like the pendulum of a clock, swinging at one time clear to one side, and then taking a start and swinging back just as far the other way. If this trouble were due entirely to degeneration, I do not believe that it would in so many cases disappear so quickly and without treatment. Sometimes it is possible to trace it to an inherited trait.—I believe human beings inherit certain mental peculiarities the same as the dumb brutes. Take, for instance, the hound and shepherd dog; one inherits chasing game, and the other watching the flocks.

Reflex irritation might be a cause, but is more apt to affect the sensory and motor functions than the mental. Sexual excesses are undoubtedly another cause, but operate more through interfering with the nutrition of the brain. There are some peculiar features in these cases that I have noticed, especially if the trouble has existed for any length of time: Hollow, sunken eyes, staring look, hair disordered (although I have met with cases where the hair and clothes were cared for with scrupulous neatness), skin and whites of eyes yellow, tongue coated, pulse small and thready, heart weak in action, temperature usually normal, but hands and feet clammy and cold, and a general appearance of having passed many sleepless nights. The torpid, inactive condition of the liver, and sometimes enlargement of the organ, is very apt to be present, so much so that even the ancient Greeks called it the "black bile." The bowels are constipated, and the urine variable in amount, color, and specific gravity. Is this condition the result of a disordered mind as the Christian Scientists tell us, or have these people got the cart before the horse, and mistaken the cause for the effect? My opinion is that the conditions I have just mentioned are causes of melancholia and not the results thereof; that they interfere with the proper nutrition of the brain, and thereby interfere with the proper performance of function, the same as any other organ will fail to properly perform its office when not properly nourished.

In the melancholia of females there may be a different set of causes to deal with, such as disordered menstruation—which, by the way, is almost universally present prior to the climacteric period. Pregnancy may be the cause, or parturition, or lactation, or some ovarian trouble. It may also be owing to changes that take place in the woman's system when she is passing out from her childbearing period; and some of the authors I have quoted hold that all climacteric insanity is melancholia.—I cannot dispute this, for what experience I have had goes to prove the correctness of this assertion. These causes may all be corrected, cut short, or are

self-limited; and in the majority of cases the insanity will be cured when the exciting cause is removed. Yet some cases will continue for months or years, and some will never recover after the cause is removed. Is it because their brain is more susceptible to these morbid influences, and consequently slower to recover from them than in others? Or is it because there is an inherited predisposition to insanity, so that when it is once lighted up it recovers slowly or never recovers at all? Why do we find these delusions in some and not in others? Why is there such a tendency to suicide in this class of patients—far in excess of what we find in any other form of insanity? In the little village in which I formerly practised, since the shutting down of the mills and factories within the last year three men have become melancholic, not sufficiently, as was supposed, to require asylum restraint, however; yet one took a fatal dose of Paris green and two committed suicide with a razor. A patient of mine in this city less than a year ago became melancholic and made three unsuccessful attempts at self-destruction, and would have succeeded had it not been for the vigilance of her attendants. Whether or not there be certain cells or nerve centers in the cortex of the brain that originate these thoughts or impulses, or are centers from which their transmission begins and they become deranged or disorganized, I am unable to say. In the present somewhat limited knowledge of the physiology of the brain I do not believe any person can demonstrate the truth or falsity of such a proposition; if proved at all it can only be by analogy. In the condition known as aphasia, where the patient is able to think, but not to speak or write, or its subdivisions alexia and apraxia, the patient is able to spell the letters, and yet cannot read a word any more than as though he was never taught to read, or he is unable to understand the sign language. There are undoubtedly nerve centers in the brain where all these visual memories are located, and when one of these centers is destroyed its function ceases; and it would be but a logical conclusion that there are certain centers that originate or are centers of transmission for every impulse of the mind, and that continued irritability of certain of these centers may be the cause of the suicidal mania. I sometimes think what a wonderful advantage it would be to the psychologist if we could expose the brain and examine its minute anatomical construction, its physiological workings, with the same facility that one can expose to view a lacerated cervix or pharyngeal epithelioma.

These melancholic patients seem to be controlled largely by the impulses or delusions that grow out of the prevailing gloom and depression. One reason why I am of the opinion that melancholia is caused many times by defective nutrition of the brain is from the fact that when the proper nerve force is restored, these abnormal ideas and delusions fade away—the mind resumes its proper work unimpaired by what it has gone through as soon as the physiological condition of the brain has been raised to its proper level by means of correcting the secretions of the body, proper feeding, and a normal amount of sleep and rest. When asked what is to be the outcome of these cases, what is one going to tell the friends? Shall they be told the patient will make a good recovery, basing such opinion on the fact that it is the most curable aberration of the mind there is? Hardly, for there are a great many things that may occur: He may, at the very moment when it is thought he is improving nicely, take it into his head to kill himself; or after some little unusual excitement there may rapidly develop a condition of acute mania or agitated melancholia from which he may rapidly exhaust himself, absolutely refusing food, sleeping little or not at all, and so die; and if such be the case the friends are apt to think the prognosis faulty, especially if after a restless night he steals away in the early morning from his attendants to some lake or pond and drowns himself. The friends are very apt then to criticize the attending physician, even though he may have faithfully warned them to be on the lookout for the things here mentioned. What then shall be done with melancholiacs? Shall they be confined in asylums? This cannot always be done, for I am of the opinion that many are better off without incarceration, provided they can have competent attendants to care for them, for there their companions are composed entirely of lunatics like them-

selves, and such companions and surroundings only tend to prolong the period of depression and gloom. But where they cannot have competent attendants, to the asylum they should go without delay, for delay in these cases is in many instances fraught with danger. I call to mind now a case of insomnia and melancholia of a mild type in a most estimable Christian lady, who confessed to me that there were times when if there were a sharp knife or her husband's razor in sight it was hard work for her to keep from killing herself with them. Her husband was ignorant of it, and was at first inclined to resent what I said to him; but early one morning, when she supposed him asleep, she got out of bed carefully and secured his razor, her mind fully made up that it were better that she destroy herself. Had he not luckily been awake at that moment there would have been one more name added to the already too long list of suicides. A genial companion was placed with her continually, and with proper treatment she made a good recovery.

The prognosis and recommendations for the care of these patients must be based not only upon their mental and physical conditions, but also on general surroundings and their ability to procure proper and competent attendants to care for them.

Just a word in regard to their treatment, and I am done. Whatever the condition of the patient; however excited or agitated the melancholiac may be; whatever his or her delusions may be or whatever acts may be committed—never let them know that the physician or attendants stand in any fear; do not allow an attendant that will be apt to get careless and not exercise the vigilance either day or night that he ought; for these patients need closer watching during the night or early hours of the morning than at any other time, and are likely to take advantage of a negligent nurse. Gain the confidence of the patient and the control of his mind as far as possible, for in this way a great deal can be accomplished. Correct the action of the secretory organs; get the heart, the liver, stomach, bowels, and kidneys in as near a normal condition as possible. See to it that the bowels move daily. Get the patient to eat all possible of good, wholesome, nutritious food, and sleep all he can; also to take a proper amount of exercise in the open air each day. In cold weather keep the patient warmly clothed in flannels and the temperature of his living- and sleeping-rooms above what would be comfortable for others, for as already remarked melancholics generally suffer with cold and clammy hands and feet.

This line of treatment coupled with careful watching, both night and day, by social and genial companions, and surroundings that are agreeable to the patient, will usually accomplish a great deal for his good.

Marshall, Michigan.

EXPERIMENTAL CEREBRAL LOCALIZATION.

At a recent meeting of the Montreal Medico-Chirurgical Society, Doctor Wesley Mills exhibited in fresh condition the brain of a rabbit which had been shown at a demonstration before the Canadian Medical Association in August last. The animal was exhibited to the latter Association the day after an operation, by which was removed not only the cortical centers for the limbs, neck, etc., but so much of the cerebrum that the ventricles were very badly exposed; yet this animal sat up in the usual position, walked and ate so well it was difficult to distinguish it from any other animal of its class. The brain had been reached by cutting down to the dura, slitting the latter open and turning it outside without removing; the cerebrum was shaved away with very little hæmorrhage. The edges of the dura were approximated, sutured, and the margin of the wound brought in apposition. On the second examination, some months later, a scar was found on the line of incision, but nothing of the kind was apparent on the dura, neither was there any adhesion of the skin or dura or of the dura or cerebrum.

Doctor Mills remarked that without experience it would be difficult to believe a rabbit could survive such an operation and have to all intents and purposes the same functional capacity as an intact animal for a period of five months. He thought it proved clearly that so far as the cortex of the cerebrum was concerned there was great difference in different animals below the Primates, and between the former and the latter.

THE MEDICAL AGE.
A SEMI-MONTHLY REVIEW OF MEDICINE.

—PUBLISHED BY—
WILLIAM M. WARREN, Medical Publisher, Box 470.

All communications regarding papers, reports, etc., should be addressed to the Editor of the MEDICAL AGE, P. O. Box 470, Detroit, Mich.
Matters relating to advertising space, etc., to be addressed to the publisher, William M. Warren, Box 470, Detroit, Mich.
The editor cannot engage to return rejected manuscripts or to correspond with the writers thereof, unless such are accompanied by sufficient postage.

DETROIT, MICH., SEPTEMBER 10th, 1897.

Editorial.

THE BRITISH MEDICAL ASSOCIATION.

The sixty-fourth convocation of this, the greatest of all Anglo-Saxon medical gatherings, has passed into history. The City of Montreal as a corporation, and the medical profession of the city, "did themselves proud" in matters of hospitality.

The attendance was large, over eight hundred registering; and a large number of medical men gathered besides, ostensibly to attend the meeting, but never registered, their aims being of a social rather than a scientific character. The greatest drawback was the lack of proper hotel accommodations; indeed, for a city of the pretensions of Montreal such were wofully deficient. Atop of this the time was unpropitious in that the meeting was held during the height of the tourist season when hotel and train accomodations are taxed to the utmost. The advent of twelve hundred special visitors as brought about by the Association only tended to make the discomfort of the surroundings more conspicuous.

The General Addresses, that of the President excepted, were decidedly mediocre, being "chestnutty" in flavor, and in one instance so self-laudatory and egoistic as to provoke most unenviable comment. The papers presented to the Sections, with few exceptions, were of like character: remarkably not a single new idea was evolved or even suggested. Their tone was such they might pass for papers read at any of half a dozen meetings of like character, convened during the past five years. Even the discussions were flat, stale and unprofitable, hence the attendance daily became more meager — so meager in fact that it was a common cause of comment and brought forth the frequent criticism that latterly medical associations of any kind rarely serve as a medium for the exchange of thought, the brushing up of ideas by mental attrition, or any other definite scientific purpose. Perhaps such convocations have become too unwieldy, and this suspicion doubtless led to the splitting up of such into Sections; but it is a question if the advantages supposed to accrue to the latter —though it certainly affords much scope to specialists—do not present more of evil than good. Formerly when all were general practitioners the amount of wheat amongst the chaff well repaid the winnowing, but now the latter so predominates there appears to be nothing left. It is notorious medical societies are too exclusively employed in the advertisement of "pushing men" with catalogues of successful cases to record, with never, no never! a failure.

Each Section being attended by those interested in a single specialty, a vast amount of material is lost of most valuable character which can only be had through the general practitioner, who is accustomed to look further into the relations and more completely on all sides of a given question than his specialist confréré. It is notorious this very cause for some years has deprived the British Association of a large and valuable membership, and the same prevented many who visited Montreal from becoming members. The number of truly representative men of the profession taking part in the meetings was small—extremely small—not alone as regards Britons and Canadians, but also among the invited guests. The axes that were attempted to be ground were numerous and sadly in evidence both as regards papers and discussions. So manifest was this that a large contingency deserted the meetings entirely and sought the corridors of the hotels, where impromptu discussions and comparisons were instituted and treated with all the frankness and freedom accruing to intimate intercourse. It must be admitted more practical knowledge was to be had from these little independent coteries than at the Sections, where the so-called discussions largely consisted of the grossest flattery bestowed upon the authors of papers.

Nevertheless the British Association was a success—a great success,—as a social body.

Scientifically it was mediocre, repetitious, heavy and wearisome; dull as ditch water, relieved only by the manifest attempts of the little chaps to be thought big and the larger ones to grow greater in the estimation of their fellow men. A number of prominent and able gentlemen from abroad never even registered, though their names appeared in the official programme; and notoriously one Chairman of a Section, though in the city, never approached the meeting at all. Again, some registered but considered their full duty accomplished when once the pen left hand, the badge was mounted and the social invitations pocketed.

After all, the Association was the usual show, with few opportunities for any but the chosen few, the elect, the self-nominated salt of the profession. Some of the medical politicians from both Canada and the United States, both as uninvited and invited guests, "were left," to no one's sorrow perhaps but their own. So far as those from the hither side of the border are concerned we are perpetually pestered with them, and it is too much to suppose that our British and Canadian brethren, who have abundance of such material of their own, would quietly submit themselves to the additional and unnecessary torture.

McGill College, which seemed to be the "running machine," conferred degrees upon a few carefully selected gentlemen, though not at all to the taste of a great mass of the body, judging from the universal adverse criticism afforded; but the critics were probably not aware this had all been predestined and foreordained, as it were, by those in power, and that it was part of the prearranged show. The Scotch element was especially indignant over the degree nominations, and the medical men from the land of the heather seemed to carry the code of ethics nearer their hearts than their Sassenach brethren, and openly accused one lord and some minor lights and others of coquetting with quackery, and resorting to methods little less reputable than those of Count Mattei; the declaration was common that the income of a certain peer is almost wholly derived from royalties.

***

There was a large and handsome display of medical, surgical and allied products at the Victoria Rink, but these did not attract a tithe of the attention expected, not even a tithe of that they deserved. American and Canadian productions were chiefly in evidence, those of Britain being scarce and imperfect, except the instrument display of a London firm. Evidently the day of "exhibits" has passed. Even the sample fiend was not conspicuous; but the efforts of a German busily engaged in puffing a Teutonic nostrum would have done credit to a Baxter Street or Finchley Lane old clo' man. He spotted every doctor at the Stanley Street entrance, and if permitted would drag his victim through the line of exhibits to his own special counter, there to expatiate upon the mythical virtues of his product.

The man who drives pills into a board was also on hand with his tools in attempts to prove his own insoluble products were the "only reliable," but it must be said to his credit he refused in every instance to specify the manufacturers that served his purpose in this silly form of medical jugglery, merely assuring the viewer they were *not* his product —"only others." What a spectacle; science descending to the juggling of the street fakir!

The exhibitors or their agents, as a rule, were remarkable for their urbanity, and general lack of methods that have heretofore so generally attended these exhibits.

MEDICAL PRACTISE IN INDIA.

If we may believe the *Indian Medical Record*, medical practise in the Orient is not all "cakes and ale." It seems that an unrestricted system of quackery prevails everywhere to such a degree that it is a "public calamity." The most lamentable cases occur now and again of culpable maltreatment of unfortunate persons at the hands of pretenders who pose as, and are believed by their victims to be, duly qualified practitioners.

Further is added that Calcutta and most cities in India are "literally overrun with quacks. . . . Every form of charlatanry is rampant. Side by side with this hydra there are no less than four hundred qualified physicians and surgeons in the city of Calcutta alone, the bulk of whom have been educated in colleges founded by the government."

The State has laid down rules and regulations for the course of study in these institutions, and appoints its own teachers. It demands and receives certain fees from students whom it invites and encourages to place themselves freely into its hands to undergo a long, tedious, expensive, and perfect course of training in the science of art and medicine. The State demands and receives fees for the examinations it has ordained as a distinctive evidence of fitness to practise the calling of a physician. The State virtually does all in its power to make these men believe in the honesty and integrity of its intentions to provide them with a passport to earn a living; but it withholds its protection from such passports, and thus practically nullifies all its promises, crushes the hopes and damns the prospects of those whom it has deluded into crediting its diplomas as being worth something, when in reality they are worth nothing, since the holder of a State diploma has no better position before the public nor in the eyes of the State than the man who practises medicine without a diploma. The State actually declines to acknowledge the certificates of these men in the case of its officers and servants who may elect to be treated at their hands in times of illness. Herein is a huge deception and fraud which the State is annually perpetrating. It would be better (till the State places a proper value and a protective safeguard on its medical diplomas) to close the medical colleges rather than to let students learn, when it is too late, that they have wasted their time.

Such is the verdict of the *Indian Medical Record* against the Government of India, and the serious indictment laid at the doors of the latter should, it would seem, awaken it to a sense of its duty and enforce upon it the moral necessity of the suppression of quackery and the recognition of the legitimate rights of qualified physicians and surgeons. And yet it must be recognized that this is easier to say than to carry out. When is taken into consideration the prejudices of caste and of race, and the inherent rights which the natives claim are theirs to employ *hakims* of their own rank or class, it is at once seen that the task is a Herculean one—one that cannot be taken up and carried out as it should be, all at once, but must be gradual and progressive.

It would seem to us as if the best method as regards unqualified native practitioners would be to require some standard whereby such could be measured, and place a date in the future when no more such would be permitted to practise until duly qualified. This would seem the more easy inasmuch as there are a number of colleges open to natives at very little expense; and further, some of the natives of India, notably Parsees and Mohammedans, have risen to the very highest rank in medicine, and have even taken prizes in competition with men educated in Europe. The Royal College of Surgeons as well as the Royal College of Physicians of Great Britain number among their fellows several native East Indians.

EDITORIAL NOTES.

Medical Papers.—

Doc or Northrup in a communication to the *Western Medical Review* offers some very pertinent suggestions to those who contribute to medical journals. He says:

Scratch out your introduction and begin where the subject begins:

Condense the body of the paper:

End the paper where the subject ends:

The various minute details had better be touched on lightly or omitted entirely:

An expert editor by remorseless stripping away the padding is usually able to make an abstract that will present all the author's ideas and conclusions in a quarter of the space of the original paper—many a man who has had something of real value to say has first smothered the life out of it with padding and then dug a grave and buried it in the midst of a five-column paper compiled for some text-book.

A single paper on a live subject, if it hits the mark squarely, will do more to establish a man's reputation than ten diluted and watery compositions.

There are very few writers at the present day who cannot learn a most useful lesson from the foregoing.

The Journal of Anatomy and Physiology.—

In consequence of the death in September last of Sir George Murray Humphry, one of the founders and editors of this journal it has been found advisable to reorganize the editorial staff. Accordingly Professors Alexander Macalister of Cambridge, D. J. Cunningham of Dublin, and G. D. Thane of London, will cooperate in the future.

The first number of Volume XXXII, which will appear in October next, will, as regards Anatomy, be conducted by Professors Sir W.

Turner, Macalister, Cunningham, and Thane, while the Physiological Department will, as heretofore, be conducted by Professor M'Kendrick.

As is well known, the *Journal of Anatomy and Physiology* is the medium of publication of the Proceedings of the Anatomical Society of Great Britain and Ireland, and besides original articles contains from time to time reports on critical and historical analyses, extracts, reviews and notices of books, including reports on the progress of anatomy and physiology in their several departments.

Alcohol as an Antidote for Carbolic Acid.—

We had occasion some time since to refer to remarks made by contemporaries in this connection. Doctor E. B. Ward, of Laingsburg, Michigan, a well known contributor to this journal, sends the following offset to the claim alcohol is an antidote to carbolic acid:

"A case in point came under notice recently. A man took a swallow out of his supposed customary whiskey bottle, which had been substituted for by the servant girl with a bottle of carbolic acid of similar size and proportions.

"Immediately on discovering his mistake he rushed to a drug store a few blocks away, where he drank a very liberal supply of whiskey and was a dead man in less than thirty minutes."

Comment seems unnecessary.

Modifications of the Germ Theory.—

As first promulgated this was delightfully simple, viz., that every contagious disease is due to a specific germ.—No microbe, no disease; eliminate the former and the latter is at once relieved. Latterly the fact has been recognized that the microbe is frequently found and the disease is as frequently absent. In order to meet the occasion the bacteriologists now assume that it is not the presence of the germ but some virulent condition of the microbe which causes the disease; in other words, the diseased condition is common to both the germ and the patient.

Whatever the result it must be acknowledged, even by those who know the most about the germ theory of disease, that there are yet many things to learn and many problems to solve.

Muzzling and Dog-Days.—

The old superstition that dogs are more apt to become rabic in hot weather is still prevalent in spite of the advancement of science. This is shown in the fact that in most municipalities during the so-called "dog-days" all canines are required to be muzzled.

As a matter of fact the muzzle never prevented a case of rabies, and never induced one; it is only a superstitious barbarism, the continuance of which is a blot upon our boasted civilization. There is no doubt the muzzle has been responsible for accusations of hydrophobia laid against dogs, and led to their suffering violent death, when the poor creatures were merely experiencing the pangs due to inability to procure water during moments of intense thirst.

Is There a Typho-Malarial Fever?—

Doctor Osler says not, "except in the brains of the doctors." He also adds it is a villainous name and should be banished from the vocabulary. Doctor Osler's experience is not so great that he can afford to speak *ex cathedra*. We know other men fully as able as he, and with greater experience, who once held the same opinion, but have since had occasion to record a radical change of view.

The Canadian Medical Association.—

The thirtieth annual meeting was held in Montreal on Monday, the 30th ult., and the usual Association routine business transacted. There was likewise some discussion in connection with the question of interprovincial registration. Doctor V. H. Moore, of Brockville, is the president for 1897–98, and the next Association meeting will be held in Quebec.

Sanitary Progress in the Far East.—

The Siamese government has under consideration the founding of a national sanitary department at Bangkok. The scheme provides for a fully organized department with a medical officer at its head, and an efficient staff, including sanitary engineers.

A Rational Belief.—

That consumption is constitutional or hereditary; and to this idea the profession after long worshiping "strange gods" is now rapidly returning.

Items and News.

Bicycling for Women.—

Jane Austen (not the original) writes me, affixing "Yours achingly" to her name:

SIR—I am a disappointed woman. The world is hollow and my faith is weak. It was not always so. I used to believe in one thing, and that was you, Mr. Editor—*you*, as represented by the *Badminton Magazine*. My menkind are a sporting lot, and I heard it quoted on all sides and on all subjects till I grew to look upon it as a paper edition of George Washington. I read every number of it and I doubted nothing; I even credited Mr. Rapier with following his own good counsel on the subjects of gambling and betting. Could faith go further? After that it came easy to believe all that was written about the delights of "cycling for women." Amongst other things I read that this form of exercise caused the "middle aged to glow with the glow of youth." The idea was pleasing (I am over thirty); I followed up the articles with avidity; according to them, a new world of pleasure was opening up before me; why had I delayed so long? I would lose no more time. I journeyed to Battersea Park and had my first lesson; it was the reverse of enjoyable, but I will be merciful and not harrow you by describing that or the succeeding ones; suffice to say, I persevered in spite of much pain and inconvenience, still trustful and hoping for my reward when once I could "ride" well.

I can ride, but the reward is as far away as ever!

I ask you, sir, can any reasonable person be expected to enjoy being perched on a scrap of leather between two wheels that won't stand up by themselves; to suffer agonies from the jolts and jars over every little bit of rough road, knowing that if she stops work for a second she is bound to come to grief, and with the dread of a punctured tire and the consequent ignominy of having to lead the machine home, ever before her? And yet these are the "pleasures" you allow your contributors to extol and write miss-leading papers upon, thereby inducing me, and doubtless others, to waste many precious hours, and still more precious pounds (two sorts). Perhaps I ought to apologize for these ravings, but if you have ever known what it is to have your faith shattered and your nerves made weak, you may not refuse to spare me a grain of pity.

If soft words would comfort Miss Jane I would write them, but she implies that they would not, so I sympathize with her silently. —"RAPIER," in *Badminton Magazine*.

Prevention of Sunstroke.—

The "danger signals" which give warning of the approach of sunstroke, or rather heatstroke, are headache, dizziness, color vision, thirst, and dryness of the skin. Rest in a cool place and keeping the head thoroughly wet is indicated when these symptoms appear. Efforts of the Board of Health should be supplemented by suggesting to the managers of charitable societies the supreme importance of the foregoing simple precaution. Through their visitors they can reach the class who need this instruction the most. They might warn them also against the use of alcohol in any form, as it is certainly a predisposing cause of sunstroke in the vast majority of cases.—CHAMPION, in *Medical Record*.

Infantile Scurvy.—

The American Pædiatric Society desires to make a collective investigation regarding the malady in North America, and consequently requests the cooperation of the medical profession throughout the United States.

Reports of cases are solicited, whether already published or not. Blanks containing questions will be furnished on application.

The committee having the matter in hand is made up of Doctors J. P. C. Griffith, 123 South 18th Street, Philadelphia; William D. Booker, 853 Park Avenue, Baltimore; C. G. Jennings, 457 Jefferson Avenue, Detroit; A. Caille, 753 Madison Avenue, New York; and J. L Morse, 317 Marlboro Street, Boston.

The Button Fad.—

An ebony-hued son of Ham called for treatment at the venereal clinic of the Charity Hospital, suffering from a little combination of chancroids and gonorrhœa with phimosis. He had his button, which displayed the motto of "Girl Wanted." The physician in charge advised him to change his button until such time as his local condition improved.—*New Orleans Medical Journal*.

The Mississippi Valley Medical Association.—

The next meeting will be held at Louisville, Kentucky, October 5th to 8th. The secretary is Hanau W. Loeb, 3559 Olive Street, St. Louis. The different passenger associations have granted a one-and-one-third rate on the certificate plan.

Tri-State Medical Society.—

The ninth annual meeting of the Tri-State Medical Society of Alabama, Georgia and Tennessee will be held at Nashville, October 12th, 13th, and 14th. Secretary, Doctor Frank T. Smith, Chattanooga.

Somewhat Suggestive!—

In Michigan they want to castrate the "feeble-minded;" the gentlemen who advocate the proceeding had better look to themselves should the bill pass.—*Medical Times*.

Enuresis.—

Diurnal incontinence of urine is sometimes produced by the presence in the bladder of colon bacilli.—*Denver Medical Times*.

Book Reviews.

CURSED BY FORTUNE. By George Manville Fenn. Cloth, 12mo; pp. 317. Price, $1.00. Rand, McNally & Co., Chicago and New York.

Katharine Wilton is left an orphan with a fortune of a hundred and fifty thousand pounds and falls into the guardianship of a coarse uncle on the verge of bankruptcy and a wife who is too timid to be very wicked and too weak-minded to be good. There is a family conspiracy to marry her to Claude Wilton, a sporting cad of the lowest type. Another lover, a precocious villain, is also very apparent, as well as his stepfather, an unscrupulous, well-preserved lawyer who attempts the rôle of champion of defenseless innocence. The hero is a poor doctor. Kate and Claude Wilton disappear the same night, and it is supposed they have eloped, but eventually Kate returns and the mystery is further cleared up by the reformation of Claude Wilton, who entirely exonerates the character of Miss Wilton. Of course the poor doctor marries the heiress, and like all good people Kate saves her uncle from bankruptcy with a good portion of her fortune.

TRUE TO THEMSELVES. By Alexander J. C. Skene, M.D., LL.D. Cloth; 12mo; pp. 397. Price, $1.25. F. Tennyson Neely, New York and London.

This is a psychological study, and those of our readers who are familiar with the author's medical works, notably his "Diseases of Women" and "Medical Gynæcology," will welcome with considerable interest his venture in the domain of romance. Perhaps no profession offers such splendid opportunities for studying human nature as that of medicine and surgery; and Doctor Skene has always been recognized as a close observer. Of course, the novel is used only as a vehicle to convey certain positive principles. The argument is plausible and worthy of close inspection. There are other features that will also prove of intense interest to members of the medical profession, always ready to investigate those wonderful mysteries with which humanity is surrounded. We can cordially recommend this psychological and analytical novel to the members of our fraternity.

IN THE DAYS OF DRAKE. By J. S. Fletcher. Cloth; 16mo; pp. 248. Price, $1.00. Rand, McNally & Co., Chicago and New York.

This is by the well known author of "When Charles the First was King," and like this latter in the new volume the author loses himself in the personality of his hero, making him tell his tale in a direct tale, distinctly Elizabethan in style—it might have been written by Sir Walter Raleigh.

All individuals from ten years upwards to three score and ten will take delight in this narrative, which comprises stirring adventures by land and sea on both hemispheres.

The volume is singularly fortunate in being presented just at the time of the Diamond Jubilee of Queen Victoria, and immediately after the exploiting of the strength of the British Navy, for herein is pictured the great beginning of England's power upon the seas.

TUBERCULOSIS OF THE GENITO-URINARY ORGANS, MALE AND FEMALE. By Nicholas Senn, M.D., Ph.D., LL.D. Cloth; 8vo; pp. 317. Price, $3.00. W. B. Saunders, Philadelphia.

The somewhat pretentious title of this volume only tends to disappointment. The author holds it "fills a gap in medical literature," but it appears to be a case of "robbing Peter to pay Paul." The entire absence of a single new idea, a slovenly treatment of clinical features, the lack of any food for thought, and the element of uncertainty that pervades the volume, certainly do not commend it as a text-book. It is merely a slipshod gathering of new and old literature, some obsolete and some factitious, with an ineffectual attempt to weld the incongruities into a harmonious whole. Doctor Senn is certainly capable of better things.

BULLETIN OF THE UNITED STATES FISH COMMISSION. Volume XVI. Cloth; 4to; pp. 427. Government Printing Office, Washington.

This is the Fish Commission Report for 1896. Barton Evermann reports upon "Salmon Investigations in the Head Waters of the Columbia River in the State of Idaho in 1895, Together with the Fishes Observed in that State in 1894–95;" George A. Segle writes of "The Artificial Propagation of the Rainbow Trout;" Leonhard Stejneger of "The Russian Fur Seal Islands;" Livingston Stone upon "The Artificial Propagation of Salmon on the Pacific Coast of the United States, with Notes on the Natural History of the Quinnat Salmon;" Z. L. Tanner of "Deep Sea Exploration," along with a description of the steamer *Albatross*, her appliances and methods.

TRANSACTIONS OF THE MEDICAL SOCIETY OF THE STATE OF NEW YORK FOR 1897. Cloth; 8vo; pp. 584. Published by the Society, Albany.

This is an exceedingly interesting volume and contains no less than forty-six original papers. Among those of the greatest value are an even dozen devoted to the discussions of the relations of impure water to disease. Other notable papers are: "Modern Treatment of Chronic Heart Disease," by Thomas E. Satterthwaite; "Hereditary Syphilis," by A. Jacobi; "Puerperal Eclampsia," by William W. Potter; "Treatment of Fibroids Associated with Pregnancy," by A. Van der Veer; "Hernia of the Bladder," by C. L. Gibson; "An Excision of the Coccyx," by Edward N. Lyall. There are the usual reports, anniversary address, etc.

MINERS' MAP OF SOUTHERN CALIFORNIA. By Benjamin F. Levet and Fred T. Perris. Paper; 38x26 inches. Price, 50 cents. Rand, McNally & Co., Chicago.

This is a very desirable map of Southern California, and it especially shows the desert region embraced in the counties of San Bernardino, Riverside, and Orange, as well as portions of adjacent counties; it also exhibits mining districts, forest reserves, Indian reservations, and county boundaries in colors; likewise wagon roads.

Besides the above form it can also be had in cloth at seventy-five cents; as a wall map with paper back at same price; with cloth back for $1 50.

VALUE. By John Borden. Cloth; 12mo; pp. 232. Price, $1.00. Rand, McNally & Co., Chicago and New York.

This is by long odds the best exposition of finances that has ever yet appeared. It is perfectly fair and impartial, and treats of the relations between values and merchandise and the fluctuations of trade. It is a volume that every business man should study, being concise and practical in all respects, and free from those sophisms which are so apparent in books that have been written upon this topic in the last twenty-five years. It is especially of value to Americans.

PHYSIOLOGY AND ELECTRO-PHYSIOLOGY OF THE NERVOUS SYSTEM. By Augustus D. Waller, M.D., F.R.S. Boards; 12mo; pp. 91. Longmans, Green & Co., London and New York.

This is Part III of the author's series of "Exercises in Practical Physiology," and was primarily prepared to facilitate the class work of the physiological laboratory of St. Mary's Hospital Medical School. It is well illustrated, very complete, and will prove of especial value to advanced students of electro-physiology.

MANUAL OF DISEASES OF WOMEN. By J. Bland Sutton, F.R.C.S., and Arthur E. Giles, M.D., B.Sc. Cloth; 12mo; pp. 436. Price, $2.50. W. B. Saunders, Philadelphia.

Inasmuch as the authors themselves disclaim any attempt to make anything more than a manual that "may be useful to students for examination purposes," little remains to be said.

THE LADY CHARLOTTE. By Adeline Sergeant. Cloth; 12mo; pp. 274. Price, $1.00. Rand, McNally & Co , Chicago and New York.

It is safe to aver that in "The Lady Charlotte" this gifted and accomplished writer has equalled if not excelled her best.

The story is full of life and action from the first page to the last, and is rich in interesting accessories involving love and honor. But the central motif is an exciting struggle between plebeian and patrician blood—the base blood being in the veins of a man and the noble in the veins of Lady Charlotte.

MCCLURE'S MAGAZINE. Price, 10 cents; $1.00 per year. The S. S. McClure Co., New York.

The September issue contains a thoroughly practical and useful article on "Life in the Klondike Gold Fields." There is a new ballad by Kipling—a dramatic personification of English rule in Egypt. There is also a humorous story by Robert Barr; Colonel George E. Waring, commissioner of street cleaning in New York, contributes an article showing that, by improvements in organization and method, a length of streets greater than the distance from New York to Chicago is now cleaned daily in New York without noise, confusion, or even dust, and at a constantly diminishing cost. William Allen White relates "An Episode of the Swimming-hole at Boyville;" F. G. Kenyon, of the British Museum, contributes an article showing what recent discoveries have done toward determining when the four Gospels were written and confirming their historical value. The September number also contains a series of life portraits of Henry Clay.

ST. NICHOLAS. Price, 25 cents; $3.00 per year. The Century Co., New York.

Contents for September: "A Girl of Winchester," by Virginia Cabell Gardner; "Floating Fire-Engines," by C. T. Hill; "Master Skylark" (XXXIV–XXXVI), by John Bennett, "A Brave Little Coward," by May Belleville Brown; "A Right Royal Robe," by Frederic A. Lucas; "Twenty Questions;" "The Last Three Soldiers" (XX–XXI), by William Henry Shelton; "A Wagon up a Tree," by John A. Lindsey; "A Soap-bubble and its Secrets," by Jacob F. Bucher; "Flower of the Almond and Fruit of the Fig," by Mary Hallock Foote; "The Street Dogs of Constantinople," by Oswald G. Villard; "Miss Nina Barrow" (XII), by Frances Courtenay Baylor; "Stories of Elephants," by Marie A. Millie; "A Fairy-Ring Inhabited," by Henry Hawthorne. There are the usual poetry, Letter Box, and Riddle Box.

THE ATLANTIC MONTHLY. Price, 35 cents; $4.00 per year. Houghton, Mifflin & Co., Boston.

In the September issue Theodore Roosevelt writes of "Municipal Administration: the New York Police Force;" Carroll D. Wright of "Are the Rich Growing Richer and the Poor Poorer?" Other papers are: "A New Organization for the New Navy," by Ira N. Hollis; "On Being Human," by Woodrow Wilson; "A Southerner in the Peloponnesian War," by B. L. Gildersleeve; "Letters of Swift" (II), by George B. Hill; "The American Notion of Equality," by Henry C. Merwin; "In Quest of a Shadow"—An Astronomical Experience in Japan, by Mabel L. Todd; "Butterfield & Co." (II), by Frances C. Baylor; "A Carolina Mountain Pond," by Bradford Torrey; "After the Storm," by Ella W. Peattie; "A Second Marriage," by Alice Brown; "A Man and the Sea," by Guy H. Scull.

VICK'S ILLUSTRATED MONTHLY MAGAZINE. Price, 5 cents; 50 cents a year. The Vick Publishing Co., Rochester, N. Y.

The September number presents a great amount of information regarding bulb planting

and culture, and has a large number of beautiful engravings of narcissus, hyacinths, tulips, jonquils, ixias, snowdrops, scillas and others. Bulb growing in its various aspects is treated, and those who wish to know about raising the spring blooming bulbs in the garden, or blooming in the house in winter, will find here a fund of valuable information.

"Experience with Begonias;" "Spring and Summer in My Garden;" "Fall-Sown Flower Seeds;" "Preserving Dahlias and Other Tuberous Roots" are titles of some of the noteworthy contributions. Especially instructive is an illustrated article on "Some of the New Varieties of Helianthus."

BLACKWOOD'S EDINBURGH MAGAZINE. Price, 30 cents; $3.00 per year. William Blackwood & Sons, Edinburgh.

The contents of the August issue are: "A Glimpse of the Late War," by Major C. E. Callwell, R.A.; "The Wild Dogs"—a chapter from the reminiscences of Comte de Muette—by Bernard Capes; "Faces and Places," by Doctor Louis Robinson; "Dariel"—A Romance of Surrey (XLIII–XLVI), by R. V. Blackmore; "At Dawn of Day," by a Son of the Marshes; "A Reminiscence of Tennyson," by Professor Knight; "The Prisons of Siberia" (III) and "The Silver Mines of Nertchinsk," by J. Y. Simpson; "The Conduct and Present Condition of Greece," by Walter B. Harris. Exceedingly interesting anonymous articles are: "Early Victorian Traveling;" "The Native Army of India;" and "A Healthy Change."

QUARTERLY JOURNAL OF INEBRIETY. Edited by T. D. Crothers, M.D. Price, 50 cents; $2.00 per year. The Case, Lockwood & Brainard Co., Hartford, Connecticut.

The July issue of this quarterly is of exceptional interest. Doctor R. Osgood Mason writes of the "Forms of Suggestion Useful in the Treatment of Inebriety;" J. W. Robertson of "The Morphine Habit: Its Causation, Treatment, and Possibility of its Cure;" W. L. Howard of "Alcoholic Maniacal Epilepsy;" Doctor A. McPhedran of "Peripheral Nephritis;" G. H. McMichael of "Alcoholism as a Disease;" Doctor Stephen Lett of "Why Do Men Drink?" Doctor N. Roe Bradner of "Empiric and Charlatan Efforts to Cure Inebriety;" Doctor V. A. Ellsworth of "The First Home for Inebriates and its Work." There are the usual reviews, abstracts, editorials, etc.

GODEY'S MAGAZINE. Price, 10 cents; $1.00 per year. The Godey Company, New York.

The chief papers in the September number are: "The Women Who Influenced Byron," by Esther Singleton; "The Caricatures of T. S. Sullivant," by V. Robard; "A Court of Love," by Carrie S. Wait; "Cooperation between Seamen and Surfmen," by Joanna R. Nicholls; "Requisites of a Mandolinist," by Paul C. Gerhart; "The Temptation of David" (I), by Carrie H. Latta; "Forgotten Hawkins," by Tom Hall; "A Tale of Muzkat," by John A. Conwell; "By That Sin Fell the Angels," by Alice W. Vorse; "Sketches from Life in Central Mozambique," by Erwin H. Richards; "Superstitions of the Jews," by Calvin D. Wilson; "In the Old South Meeting House," by Elizabeth M. Hallowell.

THE OSPREY. Price, 10 cents; $1.00 per year. The Osprey Co. Galesburg, Illinois.

The September issue is replete with good things. The frontispiece is a hitherto unpublished drawing by John James Audubon, of a Flicker. "Birds in the New York Zoological Park" is by William T. Hornaday; "White Flyers of the Sea" by Charles Hallock; "Bendire's Thrasher in Colorado" by W. W. Cook; "The Wearing of Heron's Plumes or Heron's Aigrettes" is by Frank M. Chapman. Among the illustrations we especially note that of the American Heron Gull, drawn by Fuertes; a portrait of William T. Hornaday; and a nest of the American Osprey at San Clemente Island, photographed by Joseph Grinnell. There are the usual Editorial Notes, General Notes, etc.

APPLETON'S POPULAR SCIENCE MONTHLY. Price, 50 cents; $5.00 per year. D. Appleton & Co., New York.

In the September number Henry C. Lea contributes a paper entitled "Spanish Experiments in Coinage," which describes the result of that country's continual tampering with the national currency, and points a very obvious moral for our Government; David A. Wells' series on "Taxation" discusses real and personal taxes in this issue; "The Objects and Results of Polar Research" is by George Garland; Professor M. V. O'Shea writes of "When Character is Formed;" George J. Pierce of "The Scope of Botany."

SCRIBNER'S MAGAZINE. Price, 25 cents; $3.00 a year. Charles Scribner's Sons, New York.

In the September issue William Henry Bishop writes of "San Sebastian, the Spanish Newport;" Walter A. Wyckoff of "The Workers;" Octave Thanet of "The Ways of an Election;" "To the Shores of the Mingan Seigniory" is by Frederic Irland; "A Misunderstood Dog," by Bradley Gilman; "Some Notes on Tennessee's Centennial," by F. Hopkinson Smith; "Lord Byron in the Greek Revolution," by F. B. Sanborn; "At the Foot of the Rockies," by Abbe Carter Goodloe; "The Durket Sperret" (I–V), by Sarah Barnwell Elliott. There are the usual departments.

ARCHITECTURE AND BUILDING. Price, 10 cents; $4.00 per year. William T. Comstock, New York.

The issue for August 14th contains: "The Detroit Conventions;" "Editorial Notes and Comments;" "Myths, Superstitions, Romance, and Humor of Architecture" (XVII); "Final Competition for the New York Public Library;" "Greek Measures;" "Societies;" "Personal;" "Correspondence;" "The Value of Bamboo as a Building Material;" "Industrial Progress."

THE PHRENOLOGICAL JOURNAL. Price, 15 cents; $1.50 per year. The Fowler & Wells Company, New York.

The chief articles in the September issue are: "Mr. Charles G. Wilson," by Nelson Sizer; "Education of Children," by Thomas Timson; "Phrenology as an Aid to the Linguist," by E. G. Bradford. There are the usual Notes, Child Culture, Personals, Library, etc.

Therapeutic Brevities.

Diphtheria.—Bromine is readily soluble by the addition of ten per cent. of alcohol, but if the solution is long kept it loses its color and becomes hydrobromic acid; it should, therefore, be prepared in small quantities as required for use.

My method is to commence with a cathartic, as calomel and rhubarb. Two hours later I begin to apply bromine solution topically (using the same strength for all ages and conditions), with a camel's-hair brush, probang, or a swab, to every part of the diseased membrane and beyond it.

The following is the formula:

Bromine, 4 drops.
Alcohol, 1 drachm.
Simple syrup, 1 drachm.
Water, 2 drachms.

Apply every four hours.

This application is equally useful in tonsillitis, and other forms of inflammation of the mouth and throat.

Two hours after the application I give internally every four hours one teaspoonful of the following to a child five or six years old:

Bromine, 3 drops.
Alcohol, 2 drachms.
Compound syrup of squill, 2 drachms.
Water, 4 drachms.
Syrup of wild cherry, sufficient to make 2 ounces.

It will be seen that by alternating the topical application with the internal treatment, one or the other will be brought in contact with the diphtheritic membrane every two hours. I give the bromine in doses of one-eighth to one-half a drop, according to the age of the patient.

The efficiency of this bromine treatment will be fully appreciated by every physician trying it, from forty to forty-eight hours after the first topical application, and if no improvement is apparent within that time, it will be as well to lay it aside and adopt some other course.—Robertson, in *Occidental Medical Times.*

Dieting in Skin Diseases.—Not only are there certain kinds of food which provoke immediate eruptions of the skin, but others act with a more delayed effect. It is generally easy to obtain from a patient a promise to abstain from food that produces ill effects, no matter how pleasing it may be in taste, if these effects are immediate, but when the effects become apparent only after the lapse of considerable time, as in gout or rheumatism, it is hard to obtain such a promise. Yet it is reasonably certain that effects upon the skin are often produced as remote in time from the ingestion of the deleterious articles of food as in the case of these two named diseases, although, unfortunately for science, this remote effect is denied by the majority of dermatologists.

It then seems logical to advise arthritic people to observe a strict diet if they wish to avoid annoying eruptive attacks. They should particularly abstain from coffee, liquors, wine, beer, dark meats, and acid vegetables and fruits. Persons affected with acne must avoid salty cheese, preserved meats, and fish. These precautions must be particularly observed when an attack is imminent, because of development of the morbid predisposition. The articles of food mentioned can play a rôle of accidental cause under these conditions and have an immediate pathological effect.—Brocq, in *Journal de Médecine et de Chirurgie.*

Dangers of Thyreoid.—In a case of catalepsy large doses of thyreoid apparently brought on an attack of exophthalmic goitre. The cataleptic had lain immovable in bed for over three years, all motor and sensory manifestations were absent, and feeding required the constant use of a nasal tube. The effect of increasing doses of the gland was a gradual return to the normal condition, so that he was able to speak and walk. When the dose of seventy-five grains a day was reached, symptoms of exophthalmic goitre developed, the pulse going up to 160, which required the temporary discontinuance of the remedy. After a few days the catalepsy returned and the treatment was again taken up, with the same results—disappearance of the cataleptic symptoms, but reappearance of the exophthalmic goitre. This latter, artificially produced in this manner, had all the characteristics of the true disease, with the exception that there was no glandular enlargement, and that the symptoms disappeared whenever the dose of the remedy was diminished or it was discontinued. I conclude from this that Graves' disease is due to an overstimulation of the nervous system by products of the thyreoid gland, and that the administration of this gland as a remedy is injurious, the proper treatment being one tending to reduce the functional activity of the thyreoid gland.—Hessler.

Treatment of Sprains.—For the past two years I have ordered rest for the injured member, applications of electricity once a

day for five to seven days, and massage. In most instances my patient can use the injured joint with freedom at the end of a week. I regard this mixed treatment as the best that has come to my notice; for it gets the patient well in a much shorter time and saves him days of suffering.

The patient presents himself with a joint highly inflamed, extremely sensitive to the touch, and full of pain. I at once use a faradic current of tension for a period of thirty minutes; at the end of that time the temperature of the joint is lowered, the pain has disappeared, and I can handle it freely. I then begin massage, commencing at the elbow, if the injured joint is the wrist, or the knee, if it is the ankle, and continue for five minutes; this is repeated twice during the day, and is all that I do. I don't like the bandage, and never use it; it too often excites inflammation in the already congested articulation, which increases the pain and, worst of all, renders your patient very liable indeed to abscess or a stiffened joint.

I could cite many cases in which I have employed this mixed treatment, but that is not necessary; suffice it to say that in none have I failed.—BRIDGES, in *Atlantic Medical Weekly.*

Dose of Cannabis Extract.—The United States Dispensatory says: "The preparation varies exceedingly in strength, so that it is wisest to begin with a small dose, one-quarter of a grain, and rapidly increase the amount given until some effect is produced." The National Dispensatory gives the same caution.

In employing one should be guided by these authorities and adhere strictly to the rule until assured that such use has already been made of the particular sample of extract at hand as to show that a given larger dose would be safe. In dealing with a new lot, of course the same testing process must be gone over again.

Uncertainty in the strength of cannabis extract renders it a very unsatisfactory drug to deal with, as it is of course impossible to name a maximum dose.—*Druggists Circular.*

[Such doubt, however, does not apply to the preparations of such firms as Parke, Davis & Co. or Squibb & Sons.—ED]

Poisonous Properties of Pulse.—McDougal has collected a number of facts with regard to the poisonous properties of the seeds of *Lathyrus sativus* and of some other leguminous plants. He states that the continual use of pulse by man as a daily article of food leads eventually to paralysis of the lower limbs, various instances of this being recorded in Scotland and in India. During the seventeenth and eighteenth centuries pulse was forbidden as an article of food in Germany and in France. On horses it has also an injurious effect, causing roaring, the only effectual cure being tracheotomy. On swine it produces paralysis and spasm. The alleged instances of the poisonous effects of *Cicer arietinum*, the chick-pea, are probably due to *Lathyrus sativus* having been mistaken for it. The poisonous alkaloid of the seeds of *Lathyrus sativus* does not appear at present to have been separated.—*Pharmaceutical Journal and Transactions.*

Antagonism of Morphine and Cocaine.—In any case of opium poisoning I first employ an emetic, then give hypodermatically one-fourth to one-half grain of cocaine. After twenty minutes, if no decided effect has been obtained, I give another injection of one-fourth grain; after waiting another twenty minutes I repeat the dose if there is no manifest improvement. I think three separate doses of one-quarter grain each, at intervals of twenty minutes, is the best plan to follow, on account of the very quick diffusibility of the drug and its sustained effect. During this time I would administer coffee by mouth or rectum as a supplementary heart stimulant, and in extreme cases employ artificial respiration. I urge this method with the honest conviction that it is an improvement upon the atropine and permanganate of potash methods. — STICKLER, in *Massachusetts Medical Journal.*

Birch Leaves as a Diuretic.—Winternitz's attention was called to the leaves by a female patient, whose dropsy, due to kidney disease, was relieved by them after every other diuretic had been tried in vain. Twenty-four hours after the first dose the secretion of urine becomes very abundant, and continues as long as the tea is taken. The albumen, epithelial cells, cylinders, etc., become less, and then disappear completely; and it is worthy of note that, though the increase in the urinary secretion is so enormous, no symptoms of irritation (of the renal parenchyma) have been noticed in a single case. Winternitz recommends an infusion, made by macerating three ounces of leaves in a pint of hot water for two hours, to be drank in three portions during the day. The leaves must be gathered in spring and dried in cool, airy rooms.—*American Medico-Surgical Bulletin.*

Apomorphine and Hysteria.—Inject $\frac{1}{16}$ grain of hydrochlorate apomorphine hypodermatically, and the patient will often become conscious before the syringe can be put away. A simple tonic usually completes the cure.

A patient was attacked with asthma, complicated with hysterical symptoms (pulling the hair, etc.), and one hypodermatic injection of the same quantity of hydrochlorate of apomorphine jugulated both affections. In the latter instance the patient failed to vomit, and the face turned a scarlet red, but she was up and all right the same day. It is necessary to be certain the patient has a normal heart before using this remedy, for it is possible that in a weak patient, with a diseased or weak heart, great harm might result.—*Dosimetric Medical Review.*

Sumbul.—This drug is highly valuable in spasms of the stomach, cramp, hysteria, all hysterical affections, chlorosis, amenorrhœa, dysmenorrhœa, paralysis of limbs, and epilepsy; its efficacy is undoubted in nervous atrophy. Martiny of Darmstadt found it beneficial in dropsy dependent upon impaired nervous organs.

It directly influences the cerebro-spinal nerve centers, controlling the spasm, restlessness, and incoordination of movement due to disturbances of their circulation. Its resinous and volatile constituents are excreted by the mucous surfaces of the kidney and air-passages, stimulating their vessels and controlling excessive secretions.—HARTLEY, in *The Lancet* (London).

Varicose Ulcers.—Sodium chloride (finest powder) ten parts and menthol one part forms an excellent dressing. The entire surface of the sore, previously cleaned and washed, is to be dusted with this mixture. The menthol is added in order to make the application of the sodium chloride painless. Under the influence of the sodium the most atonic ulcers do not fail to become speedily covered with healthy granulations. When these latter have replaced the lacking tissue, the use of the mixture is stopped, since salt stimulates only the process of granulation, but does not possess keratoplastic properties, and it will be necessary then to employ the usual means for hastening the epidermization.—SIMONELLI.

Pellotine.—This is an alkaloid obtained from several varieties of cactus, and found in the market in the form of muriate, which is a white crystalline salt, freely soluble in cold water, and of a bitter, gourdy taste, not persistent or very disagreeable. At present it is only to be obtained in small quantity, and at great cost. Given in one hundred instances to ten patients in half-grain doses it induced particularly calm and natural sleep without headache or nausea, and the only objectionable effect was a tendency to produce vertigo when given in full doses, and in one case actual loss of consciousness supervened.—*Glasgow Medical Journal.*

Bryonin as a Cathartic.—Bryonin, one of the glucosides of *Bryonia alba*, is an efficient cathartic and also distinctly diuretic. Its administration is indicated in cases of ascites and in congestive states of the liver and in all chronic inflammatory conditions of the serous membranes. It is best prescribed in the form of granules, each containing one milligramme of the drug. One such granule is given every two hours until a sufficient action of the bowels is obtained, after which one granule twice or three times a day is sufficient.—*International Medical Magazine.*

Pulsatilla.—I have seen nervous, fidgety, hysterical women entirely quieted and made to feel really comfortable and pleasant in twenty-four hours of treatment with pulsatilla. It is a bad medicine to trifle with—causes very many bad symptoms when the dose is too large; but it is everlastingly good in the right cases. It may be combined with belladonna, with which it works splendidly when the vasomotor centers are weak and the spinal cord needs a gentle stimulant to tone it up.—JOSEPH ADOLPHUS.

Shock.—A hypodermatic injection of one-twentieth grain of strychnine should be immediately administered, and repeated every half-hour until three doses are given; then every four hours until the patient recovers. Recovery at any moment is, of course, the signal for discontinuing the medicament. In chloroform narcosis an injection is given immediately prior to the administration of the anæsthetic, and the same rules followed as in the case of shock.—*Dosimetric Medical Review.*

Arsenic in Scarlatina.—The protective and prophylactic action of arsenic against scarlatina has been confirmed by Sperawsky. Twelve individuals were treated, all being children who were in contact with cases of scarlatina; not a single case contracted the malady, although none were isolated from in-

fected cases. In addition the author treated two cases of the disease with arsenic, and in one the patient was able to resume his work within a week.—*Revue de Thérapeutique.*

Follicular Tonsillitis.—This is an acute infectious disease and should be treated as such. Whilst systemic treatment is of paramount importance, local treatment should not be neglected. Each crypt should be carefully cleansed with a strong solution of hydrogen dioxide, then applications made to each with solution of silver nitrate, forty or sixty grains to the ounce. Involvement of the pharyngeal or the lingual tonsil should receive similar treatment.—*Philadelphia Polyclinic.*

Blaud's Mass.—No nicer means of exhibiting ferrous carbonate can be found than the filled gelatin capsules recently placed on the market. They possess every advantage of price, convenience, and therapeutic efficacy. The gelatin dissolves quickly and the granular contents are then strewn over the gastric membrane or mixed with the food in the stomach; the action of the medicament is thus as positive and speedy as can possibly be desired.—*Pharmacal Notes.*

Chocolate-coated Pills.—Schlicht prepares chocolate-coated pills in the following manner: Shake up the pills in a hollow globular vessel with gum arabic mucilage and powdered chocolate alternately, until they are covered to the desired thickness. Then shake again in a similar receptacle of metal, or any ordinary tin box, one-half of which has been slightly warmed. By this process pills may be coated with the utmost elegance and uniformity.—*Apotheker Zeitung.*

Calomel Treatment of Typhoid.—Keep patient in bed until for an entire week the temperature has been normal. Keep him on a sterilized liquid diet as long as he remains in bed. At the beginning of the disease give ten grains of calomel on alternate days. Give one grain of carbolic acid and three dops of tincture of iodine, every four hours, during the entire illness.—Augustus Elliott.

Nasal Ulcers.—Ulcers on the nasal septum, which are often the source of epistaxis, are best treated by application of potassium permanganate in solid form. A probe wrapped in slightly moist cotton is dipped in finely powdered potassium permanganate and applied to the affected surface, the surplus being washed away. Varicosities of the septum often yield to this treatment.—*International Journal of Surgery.*

Collinsonia.—The value of *Collinsonia canadensis* in the treatment of all hæmorrhoidal affections has been placed, during latter years, beyond all dispute. It affords ready relief in bleeding piles, whether accompanied by constipation or alternating with diarrhœa. In hæmorrhoidal dysentery it is one of the most valuable remedies.—Kopp, in *Homœopathic News.*

Dourahinha.—Santesson has obtained from this Brazilian drug a poisonous basic substance, *Douradine*, which may possibly be identical with the *Palicourine* of Peckolt. The drug itself is described as a diuretic and diaphoretic, and it is said to act on the heart similarly to digitalin.—*Archives der Pharmacie.*

Ointment for Hæmorrhoids.—

℞ Sweet almond oil, 2 drachms.
Oxide of zinc, 1 drachm.
Bismuth subnitrate, 1 drachm.
Benzoinated lard, 6 drachms.

—*Chemist and Druggist.*

Administration of Ether.—The most alarming danger signals are sudden pallor of the face, dilatation of the pupils, and darkening of the blood. When these present the anæsthetic should at once be withdrawn and resuscitating measures instituted.—Hearn.

Echinacea.—Recently this proved very efficient in a severe case of spinal meningitis. From reports and personal experience I am inclined to the opinion this remedy has properties other than antiseptic that are quite well marked.—Cooper, in *Medical Gleaner.*

Painless Tooth Extraction.—Dissolve equal parts by weight of cocaine hydrochlorate, morphine sulphate, chloral hydrate, carbolic acid, and inject with a hypodermatic syringe into the gums.—*Dental Digest.*

Tattoo Marks.—These can be removed by electrolysis in the same way as superfluous hairs are destroyed.—*Vermont Medical Monthly.*

Medical Progress.

THE ÆTIOLOGY OF CANCER.—In a recent number of the *Medical Magazine* a very remarkable paper appeared from the pen of Doctor George Beatson, of Glasgow, on the relations between the organs of generation and cancer, giving an account of a case of cancer of the breast cured by removal of the ovaries. In the course of a novel and clear explanation of the line of reasoning which induced him to perform the operation, which he did with success, he mentions that his attention had been attracted by the close relation existing between the mammæ and ovaries in animals; the function of one or other being active means that the function of the other is in abeyance for the time being, and *vice versa;* also the close similarity in the production of milk by the metabolism of the glandular cells, and the change occurring in these same cells in cancer formation, the theory being that the epithelium of the ovaries preserves an embryonic character, and a germinating power which is not lost, as it is in differential cells of other structures, except they (the latter) retrograde towards the embryonic state. Others hold different views, but Doctor Beatson's view has for a long time seemed to me to be the only true explanation of cancer formation. Those who look for a bacterial origin must needs be disappointed. It is not inoculable, and no specific bacterium or organism has been cultivated from which cancer can be propagated. Failing in this, the microbe theory fails. Doctor Beatson's view is also supported by the pathology of other germinal histoid growths, as enchondroma of testicle for example, for the origin of which we go back to the blastoderm. The form and mode of generation of cancer cells favor the assumption, though it is difficult to explain the autoinfectivity and fatal nature of the disease on these data. It is beyond dispute that the inception of the idea and practise detailed in the paper is novel, interesting, and unique in the annals of pathology and surgery.—GEO. B. WHITE, in *Medical Press and Circular.*

PLUMBISM OR CANCER.—There is grave reason to believe that "abdominal cancer" is a diagnostic cloak which covers many grave errors. In private practise the wasting digestive disorder which resists treatment is diagnosed in the child "marasmus," or in societies with a smattering of science "tuberculosis," while in adult it is labeled "cancer." Unless there is a surgeon around no doubt is ever cast on the accuracy of the decision; and soon the indulgent earth covers all.

If a bit of hard tissue is found in the upper abdomen, to say nothing of a definite lump, the diagnosis is considered absolutely certain. As long as so many people continue to believe that many probabilities make a certainty, this state of affairs will continue.

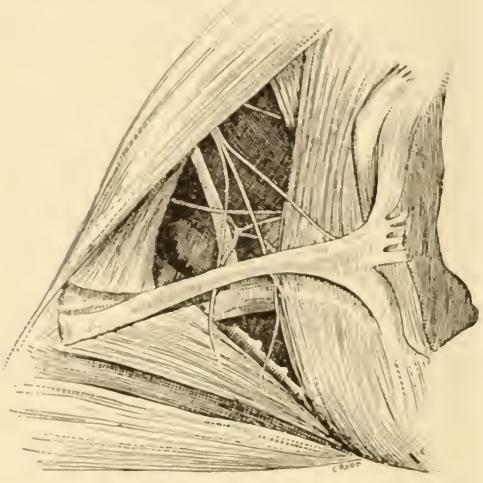
La Clinique quotes from an exchange a very interesting case in which lead poisoning was mistaken for cancer of the pylorus. The patient, a man of thirty-six years, suffered for two months from pains in the abdomen, constipation, and incessant vomiting; was extremely emaciated. The disease was supposed to be intestinal occlusion. In the epigastrium there was found a vague resistance on palpation (but no definite tumor) very painful to touch. With the emaciation there was a faint icteroid tinge of the conjunctiva, a tint that suggested cancer, but no enlarged lymphatics could anywhere be found.

The patient had seen all the physicians of his neighborhood, and all diagnosed cancer of stomach. Surgeons of repute were called in and proposed operation. The last consulted, however, hit on the idea of rectal exploration, and introducing the finger found the rectum in a state of painful spasmodic contraction, with evident diminution of its size. Palpating the abdomen he found the whole large intestine hard, small, and smooth, like a rubber tube in the belly. An examination of the gums showed signs of lead poisoning.—*Maryland Medical Journal.*

AN EPIDEMIC OF STRONGYLUS.—Some years ago Méguin and Rémy published an account of an epidemic of pseudo-tuberculous disease then raging among hares in Alsatia and in the Vosges mountains. Post-mortem examination of the diseased animals revealed the presence in the lungs of disseminated caseous nodules closely resembling those of miliary tuberculosis. Closer examination, however, made it clear that these nodules were not due to the tubercle bacillus, but were of the nature of a helminthiasis, containing fine, hair-like parasites of the family of *strongylus commutatus.* It was inferred that the malady, previously unknown in France, had spread from Germany, where its existence had already been observed. We now learn that this malady has broken out in several other departments, and sportsmen frequently meet with the bodies of hares that have succumbed to its effects. Méguin has had an opportunity of examining several of the bodies, and reports that the bronchi are

filled with fine filaments resembling carded cotton, each such filament being a fully-developed strongylus. This observer remarks that in every instance the intestinal canal of the animal was packed with worms of the kind known as *tænia pectinata*. The exemption of certain areas of territory from the disease is attributed to the abundance of acorns in those regions, which are greedily consumed by the hares. An adequate supply of this edible fruit might, it is suggested, assist in preventing the further spread of the disease.—*Medical Press and Circular.*

Musculus Supra-Clavicularis Proprius of Gruber.—At a recent meeting of the Anatomical Society of Great Britain and Ireland Professor Wardrop Griffith exhibited a specimen of this muscle present on the left side only, in a male subject. Its origin was from the inner part of the anterior aspect of the clavicle, slightly tendinous, and quite distinct from the sterno-mastoid and pectoralis major. It passed out above the clavicle, and expanding into a tendinous lamina, was inserted partly into the skin and partly into the fascia over the trapezius, clavicle, and deltoid. Two supra-clavicular twigs, from the inner of which its nerve was derived, passed between it and the clavicle, while the supra-acromial branch passed through its aponeurotic expansion.—*Journal of Anatomy and Physiology.*



New Test for Seminal Fluid.—The recognition of spermatozoa in medico-legal researches is often a matter of considerable difficulty, especially if the material under examination is of old date. Great interest consequently attaches to the test for semen devised by Florence, of Lyons, and recently confirmed by W. F. Whitney. Florence's test comprises the use of a reagent often made use of in testing alkaloids, and is known as the tri-iodide of potassium. The test solution contains 1.65 parts of iodide of potassium, 2.54 parts of pure iodine, and thirty parts of distilled water. A drop of this solution, placed side by side on a slide with a drop of fluid obtained by moistening the seminal stain, results in the formation of a number of characteristic brownish-red pointed crystals, rhomboidal in shape, and presenting a certain resemblance to hemin crystals. Wyatt Johnson, who has carried out some investigations with this test, reports that he has been enabled to obtain the reaction with stains upwards of twelve months old, and not only is the reaction not obtained with other organic secretions, but even the semen of animals gives a much less marked reaction. Whitney suggests another test, which may be used in conjunction with the foregoing. A drop of fluid obtained from the moistened stain is evaporated on a slide, and fixed by heat in the usual way. The resulting film is then stained with eosin and methyl green, when it will be seen that the head of the spermatozoon is stained at the base a deep green color, while the anterior part and the tail stain red. This staining reaction is well marked only in human semen, so that a possible source of error is obviated.—*Medical Press and Circular.*

Aphasia Medico-Legally Considered.—It is quite possible that in due course of time the question of whether aphasia constitutes a legal disability in the case of a patient making a will, will be brought forward for decision. Doctor Mantle, of Halifax, England, has just recorded a case in which an aphasic patient of his made a last will and testament under certainly unusual circumstances. The patient formed the outline of the letters on the bed-sheet with his finger and then explained to his solicitor and wife that when they meant "yes" they were to squeeze his hand, and when they meant "no" to tap it. In this manner the testator was able to have his wishes incorporated in a will, which he subsequently signed with his left hand. Of course the point upon which the legality of the document will depend is, whether there is sufficient evidence to show that the mental condition of the patient was satisfactory at the time the will was drawn up and signed.

A similar point has been raised before and affirmatively settled in the courts of St. Louis in the case of Wm. T. Bevan, wherein the physicians maintained the affirmative of the proposition and were sustained by evidence before the jury and the jury's decision. The subject of aphasia was then comparatively new and its literature far less than at present, while the knowledge of this subject was less extensive, definite, and elaborate than now appears from the later researches of Bartholow, Mills, Eskridge and others in this country, to say nothing of European contributors, which, however, have not equaled those of American writers, if we except the physiological experimentations of Heitzig, Ferrier, and others.—*Alienist and Neurologist.*

Nervous Manifestations of Syphilis.—Headaches which disappear if paralysis occurs:

Insomnia, nearly always associated with headache, and disappearing with the appearance of convulsion or paralysis; it differs from the insomnia of neurasthenia and melancholia in that it occurs in the early night, the victim arising in the early morning ready for his daily labor:

Vertigo, occurring usually with the headaches; it may be transient, but becomes worse as the disease progresses:

Tremor, present in one-half of the cases; it occurs most often in the order named: in the hands, tongue, and over the whole body, accompanied by headache:

Hemiplegia:

Erratic distribution of paralysis, as aphasia, with or without hemiplegia, ptosis, insanity, or epilepsy, with paralysis of one arm or leg:

The use of electricity to determine central or peripheral lesion:

The presence of great weakness and mental dulness,—this is one of the most valuable of the nervous manifestations, being out of proportion to the seeming condition of the patient:

History of the case,—in women, the history of many abortions would point to syphilis.—Hodges, in *Medical and Surgical Reporter.*

Early Diagnosis of Coxalgia.—Beside the usual symptoms of incipient coxalgia, there are two important additional signs, viz.: The atrophy and fatty degenerations of the muscles and bones, and: The hypertrophy of the subcutaneous cellulo-adipose layer, which exists in every stage of the disease from the first and increases with the gravity of the case; in advanced stages the hypertrophy extends throughout the whole member. This is the cause of the effacement of the fold between the thigh and buttocks (*pli fessier*), and the difference in this respect between the sound and the affected thigh is very evident. Alexandroff has invented a special instrument, the adipometer, resembling Weber's compass, to measure the thickness of this subcutaneous layer. The movable portion of the apparatus slides on a graduated plate, and a spring near the handle allows a pressure of five to ten grammes. He has been using it for six years and states that atrophy of the member, coinciding with hypertrophy of the fold, is one of the most important signs by which to recognize tuberculous osteo-arthritis before any other symptoms have appeared; while the absence of these trophic troubles is conclusive evidence of the non-existence of a tuberculous lesion of the coxo-femoral articulation, even when it is indicated by other symptoms.—*La Presse Médicale.*

Senile Tuberculosis.—Tuberculosis is often carelessly regarded as a disease almost peculiar to youth and early adult life, but, as a matter of fact, tuberculous lesions of viscera, of joints, and even of the skin, are tolerably common even in advanced life. The symptoms are identical with those with which we are familiar in the young, but the prognosis, as might be expected, is vastly less favorable. While in a young subject placed under favorable conditions of environment tuberculous disease, even involving a large joint, may be perfectly and permanently recovered from, it is quite otherwise when that lesion presents itself in an elderly person. As Mr. Howard Marsh pointed out in the paper which he recently read at the Medical Society of London, it is rare for recovery to take place in tuberculous disease of a large joint occurring in a person over fifty-five years of age. These lesions occurring in the joints in elderly persons are frequently mistaken for gouty or rheumatic manifestations until suppuration and disorganization pave the way to a correct diagnosis. This difficulty of early diagnosis may possibly account in some degree for the unfavorable course which these patients usually follow.—*Medical Press and Circular.*

Eyesight of Children.—I subjected 8125 children to simple tests of vision in twenty-five elementary schools in London. Of these less than forty per cent. were possessed of normal vision in both eyes. No evidence of

any extended prevalence of myopia; the proportion of cases being small, bearing no relation whatever to the lighting of the school, the two schools in which the greatest proportion of cases occurred being, respectively, the best and worst lighted of the whole number. An important fact was the complete absence of any evidence as to progressive myopia; some of the more pronounced cases were observed in children who had recently joined, and there was no evidence that it increased with the length of attendance. Hyperopia is responsible for the vast majority of defective refraction; the increase of this condition has no connection with school life, and can be counteracted only by improvements in the general condition of the poorer class.

School life is not detrimental as to astigmatism.—BRUDENELL CARTER.

ROUND WORMS IN STOMACH.—The presence of round worms in the stomach is by no means a rarity. I have seen at least six cases, all in children, in as many months, and in one the worm was vomited alive. Three of the cases were coexistent with scarlet fever, and one with typhoid. In every case there was one marked symptom, a peculiar sort of croup, not merely a simple aphonia, which puzzled me very much. The worst case was the first I saw in conjunction with scarlet fever. The patient, a boy aged five, some six days after the first appearance of the rash was taken with what seemed an attack of true croup. This attack continued for two days, and he seemed to be getting into a dangerous condition. On the morning of the third day he had two attacks of vomiting, when he got rid of no fewer than sixteen round worms, each measuring from eight to ten inches in length. With the expulsion of these the croup symptoms immediately vanished. I cannot recollect whether or no constipation was present in any of the cases.—MORRIS, in *British Medical Journal.*

DEVELOPMENT OF MAMMARY FUNCTIONS BY THE SKIN.—Hintse observed a case of tender swellings in both axillæ after labor, the left being as big as a hen's egg. This was extirpated, but the right disappeared spontaneously. Many months after a small swelling could be felt in that space a little behind the scar in the left axilla, corresponding to a second collection of secreting tissue, which was exposed during the operation but not excised. A small, nipple-like structure was removed at the same time as the larger mass, which was a true separate mammary gland, with acini complete, and blind galactophorous ducts. The nipple-like structure was not connected with the glandular mass. It seemed, microscopically, to be a papilloma of the skin. This glandular growth corresponds to the "axillary lumps without nipples or pores," described by Champneys, and are probably aberrant lobes of the main gland. Gopel reports primary cancer and primary adenofibroma of one of these axillary structures.—*British Medical Journal.*

DANGER OF STANDING WATER.—Water that is left standing in the kitchen or bedroom, and above all in the sick-room, over night, is liable to contamination by absorption of impurities afloat in the air, and thus become wholly unfit for use. No matter that the water is cold, even to near freezing, it is so much the more liable to absorb and hold in solution the foul gases and organic particles to which it has been exposed. It is dangerous to use such water. Water should not be so left; but if it should by chance so be, it should be thrown away. Fresh drawn water only should always be used for culinary purposes, as well as for drinking, whenever practicable. Moreover, faucets over sinks and wash-basins are always more or less liable to contamination, hence the first water that flows on opening them after they have been left all night without use should always be let flow away—it is dangerous to drink and unfit for the teakettle, or for cooking-water; even boiled disease germs are unwholesome.—*The Sanitarian.*

AN EPIDEMIC OF HICCOUGH.—Berdach, of Vienna, records an epidemic attack of hysterical singultus that occurred in a school and confined itself to one class. One of the girls, aged five, became ill one day with inspiratory singultus of a hysterical nature. A second girl suddenly took ill with similar symptoms associated with hystero-epileptic cramps. In the course of eight days sixteen other girls out of the class of thirty-five were attacked. All the children were anæmic. The characteristics of the disease closely agreed with Charcot's description of hysterical inspiration cramps, the contractions of which ceased during sleep, could not be suppressed voluntarily, generally attacked anæmic children, with a tendency to recurrence. In Berdach's cases seven days' absence from school sufficed to bring about convalescence. —*The Medical Press and Circular.*

The Medical Age.

Vol. XV. DETROIT, SEPTEMBER 25th, 1897. No. 18.

Original Articles.

MYXŒDEMA.*

BY H. H. SMITH, M.D.

There is perhaps no subject of deeper interest in the archives of modern medicine than the recent discoveries of the function of the thyroid gland. That this organ not only has a part in the economy, but that life itself depends upon its activity, there can no longer be a doubt. An example of the grave consequences of interruption of function is found in the following case:

Mrs. D——, aged 38, married, came to me a year ago with what seemed to be an enlargement of the right side of the neck, involving the circulatory vessels in the region of the thyroid gland; there was also an œdematous swelling of the face, with a roughened skin. Placing her hands upon the thyroids she remarked she had here for several months an aching and tired sensation, gradually growing worse and most apparent after any exertion; pressure seemed to give a sensation of rest.—I mention these facts because I believe these symptoms to be diagnostic. I also noticed that the œdema involved the upper eyelid as well as the lower one. There was also present a cough, with abundant mucous expectoration. She complained of sore spots, as she expressed it, in various parts of the body—a place would get tender and painful and remain so for about a week, to be repeated in some other portion of her anatomy; these places resembled the tender points observed in neuralgias. The swelling extended to the right side involving the internal organs. The pleura and lung produced dulness on percussion, giving one the impression of pleuritis; the swelling even extended to the abdomen, involving the omentum, and then to the limbs. The pulse and respiration were increased in frequency. Temperature at times was subnormal, as is frequently the case in this disease. She was nervous and petulant and loss of memory was a notable feature. Being an elocutionist, she was now unable to rehearse pieces she had been perfectly familiar with; neither could she recall historical events or names of men connected with them, and would often ask others to help her out. At the time she called on me for medical advice I was unable to make a diagnosis of her case and refused to give any treatment, but advised her to consult another physician, which she did with but little better results.

She then returned to me, and I advised a consultation with a surgeon from one of our educational institutions of this State, whose opinion was he could cure the patient by performing a hysterectomy or some such operation. To this I objected, on the grounds that a diagnosis had not been made and there was no reason to expect relief from such a procedure. I then (one year ago) presented her for examination before the North Central Ohio Medical Society, when was diagnosed a neurotic affection of minor significance.

This little hint was of great value to me, being the first glint of light shed on this most interesting case, and by following it up I was enabled in a few weeks to announce it a case of myxœdema, very able descriptions of which are now found in text-books.

My patient was now in the hands of the best physicians of Lexington, Ohio, who treated her variously, but with little progress. She was constrained to go to Cleveland, Ohio, for further treatment, and here my diagnosis was confirmed by Doctor Parker, who put her on thyroid extract. But worn and exhausted by so many fruitless efforts, this boon came too late. She died a poor distressed being a few weeks later.

Such is a brief history of this case, and to add minutely thereto would be of little avail, except perhaps to say that both glands were not affected simultaneously, the right having gone through the metamorphic destruction before the left was attacked, giving the appearance of a unilateral affection. This is true of other glandular organs, as diseases of the kidneys or salivary glands, etc.

*Read before the North Central Ohio Medical Society.

The use of one word would have been of much value to me in the diagnosis, and that is "resilient" tissue, as given by Hammond. This term should be modified, however, and semi-resilient would, I think, be more appropriate, for at times the swollen tissues that pervaded her entire body were boggy and not resilient. Another point diagnostic is the rapidity with which the swelling comes and goes: at times the face would be so puffed up as to almost close the eyes, and in ten, fifteen, or twenty minutes all would be gone — a condition that could only obtain in resilient tissue. The boggy condition, making a semi-resilience, is owing to the presence of mucin in the subconnective tissues. The spade or bulbar fingers appear late in the disease and should not be relied on for diagnosis, which should be made early. While a slow disease, this is of much importance, for if treated in time it is easily cured. Its diagnosis is said to be easy, but I think the contrary; that which makes it difficult is not the disease *per se*, but rather its rarity. Physicians seldom meet with it; it comes unexpectedly; one thinks of almost everything else first. I believe, however, it is as common as exophthalmic goitre, for I have many reasons to think that many cases go through this disease to death, and its true nature buried with the patient. Diseases of the thyroid gland should be closely studied, and more learned of the important function of this organ. It is interesting to note that what has already been accomplished is not the work of one man, but the combined efforts of many independent workers; and the literature of this gland reads like a romance.

In 1873 Gull made a clinical demonstration on a cretinoid state supervening in adult women. Ord reported two cases in 1877, where atrophy of the thyroids and mucin in the subcutaneous tissues were striking post-mortem features. Kocher, who had removed thyroids, observes similar changes to those of Ord. Schiff and Horsley in Switzerland and England showed that the removal of the thyroids in animals—the dog and monkey — were followed by cretinoid symptoms and death. It has been shown that cretinism and idiopathic myxœdema are one and the same, depending upon the proper function of the thyroid glands. The idea of myxœdema being a neurotic affection is at present discarded. It is probable, however, that there is generated from the nervous system a waste product that produces an autoinfection, which requires the neutralizing agency of the thyroid principle before it can be eliminated. I believe that the thyroid element is the natural solvent, so to speak, of this principle or toxin, without which there is an accumulation in the system of a ptomaine, a product of nerve cells, that induces all the phenomena of myxœdema. The chemistry of these toxins is at present but little understood. Baumann has recently eliminated an iodine compound from the thyroids of sheep, which he terms thyroidin, and it may prove to be the active principle of the glands; it differs from the ordinary iodine preparations, and is an antitoxin. I observed that iodine preparations did in a measure benefit my patient and were the only drugs that to my knowledge made the least impression for good; but iodine preparations alone will not cure myxœdema, while thyroid will. The iodine in my opinion must be in the form of an antitoxin, perhaps a toxalbumin, having a definite chemical affinity for nerve waste. This, however, is only speculative, as I have not yet had an opportunity to make tests on animals whose thyroids have been removed. It would seem interesting indeed to note the effects of injections of iodized blood-serum on cretinoid animals; and if this should prove available there would be a remedy no less phenomenal than the famous diphtheritic antitoxin.

It is claimed that myxœdema and exophthalmic goitre are the opposite of each other; that there is atrophy in one and hypertrophy in the other, and as a consequence there is in exophthalmia secreted too much thyroidin and therefore the pendulum swings to the other side, so that thyroidin would be contraindicated in this disease. Clinically this has not proved true in my hands, so far, at least, as the iodides are concerned, for I have received the best results from potassium iodide in exophthalmia; and I should further say that hypertrophy of an organ does not necessarily imply hypersecretion; it is an error, in my opinion, to state that exophthalmia and myxœdema are the opposite of each other in

this sense. But thyroid extract may be considered in a remedial sense as a true restorative, supplying to the system that which is deficient (which I believe is a natural solvent to nerve waste) and in that way eliminating a poison. As there is atrophy and destruction of these glands, the remedy is required to be continued throughout life, though in reduced doses. Murray reports the first case he treated in 1891 is still alive and well, but the thyroid feeding continues.

There is so much to be said upon this subject that I have only time to touch upon what seem to me to be salient points:

The importance of an early diagnosis:

That semi-resilient is a better term as applied to the œdema than resilient:

That an œdema that comes and goes quickly should excite suspicion of myxœdema:

That the bulbar fingers come too late in the disease to be of diagnostic value:

That the cure is certain if treatment is begun early.

Lexington, Ohio.

FATTY ILLS AND THEIR MASQUERADES.

(VIII.)

BY EPHRAIM CUTTER, M.D., LL.D.

Celsus has told us that the operations of Nature in medicine are like those exerted in agriculture and commerce. Physicians are wont to declare they have "cured" a case; but they should say, "We have changed things in obedience to the law of gravitation and medicine, which have righted the patient."

Nature in surgery is equally essential. Take a simple cut of the skin. All that the surgeon does is to care for the cut, bring the edges together, keep it clean by dry absorbent cotton (if he chooses). Other things being equal the cut will heal through Nature's sending the leucocytes and pouring out the lymph, which she organizes into new connective tissues. This is no more wonderful than Nature's repairs of wounded plants and fruits; for it is an inherent law of Nature to heal wounds if she has the wherewithal to do it with. On the first phalanx of my right forefinger is a scar of a surgeon's cut made for a sore infected from a patient, which almost destroyed me by its systemic injuries. The wound gaped widely with thick edges, and the surgeon said it should be sutured. I said, "Let the edges alone, Nature will make them right;" and then I alluded to a case where Doctor Gilman Kimball, the veteran ovariotomist, sutured an abdomen that had been so enormously distended that large transverse folds of skin two inches high surmounted the vertical median line! Yet Nature smoothed down both cases as well as if they had been sutured to make all the edges meet.

In a fracture of a bone what more does the surgeon than to reduce it and retain in position, while the extraneous effused blood and the reunion of the fragments are restored by Nature's processes? Of course the surgeon or patient can spoil the healing; but I am dealing here with *good work* in surgery. In laparotomy for appendicitis the surgeon removes the offending body, but he depends entirely on Nature to do the healing when relieved from the offending part. If Nature healed not, death would surely follow. Indeed the history of surgery tells of many a case where there was a splendid operation, after which the patient died from shock or poor constitution, which terms are but synonyms for the inability on the part of Nature to do her accustomed work. People have been disemboweled, their entrails trailed in the dust, and yet have recovered without antiseptics! Persons have been impaled on hay-forks. A man once had a crowbar blown through his skull and emerge through the crown, and yet recovery has followed. In such cases the conventional remark is that his constitution saved him. Surgical shock means that the constitution receives a blow, that may or may not be fatal, according to the nature of the individual resistance and reserve force. Independent of all surgery is Nature's power of recuperation. So, after all, Nature performs the cure in surgery.

The action of medicines depends on the condition of the system—*i.e.*, Nature's power. When I was young there used to be epidemics of dysentery and scarlet fever of a malignant type, and I have heard my father say the first cases were invariably the most severe and would not respond to drugs; even strong

emetics would not act. This he attributed to the severity of the type of the disease, which exhausted the vitality so that it would not react to the influence of medicines any more than a dead lion to a kick. Sometimes this want of reaction is impossible to explain. I once saw in consultation a family vomiting from the eating of baked peas. After several hours' administration of medicines to arrest emesis I suggested to the attending physician to give emetics and finish up the vomiting. They took the sulphate of zinc, kept it down, ceased to vomit, and all speedily recovered. I think it cannot be denied that Nature has the largest share in the cure of fatty ills.

I tell my pupils sometimes, "Attend to Mr. A—— or Miss B——, see that they have all needed care, and then forget all about them: let Nature do the rest." Introspective thoughts, making one's self a debating society, are very destructive of Nature's processes, and have slain when otherwise the lives might have been saved. I have witnessed worry bringing back oils and fats into the circulation after they had been removed by treatment, simply because worry reduced the vital forces.

Patients with fatty ills may present themselves so worn out as not to respond to the measures employed for relief. I have had some patients who appeared, in common parlance, "too far gone for any good," and yet they recovered because realizing their weakness and limited chances of recovery they have held on to the measures offered with no diversion of mind, no inside debating society, nor great overwhelming depression, which physicians cannot heal. *Per contra*, I once knew an ill wife's recovery to be upset by a knowledge of her husband's marital infidelity; this knowledge wasted so much force that Nature had no power to cure; when Nature could not hold her own, devolution wrecked the case. The relation of Nature to the cure of these fatty ills is as Air to Music. No air, no music.

As remarked before, the future of medicine will be curing disease by removing causes, such as bad foods; giving few foods on which the body will thrive; oiling the machine with hygiene, massage, medicines; conferring force by the *materia alimentaria* (Joseph Jones, M.D., LL.D.), and then Nature does the cure! On these principles I, from personal experience and the experience of others, am sure fatty ills are not incurable! One must not, however, sit down, fold his hands, and gracefully wait for death, but apply the principles I have tried to lay down, and try remedies as is done in recognized curable cases.

Here is a fine field for state medicine. Just as it is commanded to leave off contention before it is meddled with, so fatty ills can best be relieved by treatment beforehand (prophylaxis), by teaching people to avoid such ills by proper feeding.—A sapling is easier uprooted than a tree.

Now regarding special and particular treatment: As a prelude I will cite the following evidence:

> For persistent albuminuria, I agree with Roberts and Rosenstein that we have no remedy of the slightest value. Nothing indicates more clearly our helplessness in controlling kidney metabolism* than our inability to meet this common symptom.†

I have no quarrel with Doctors Osler, Roberts, and Rosenstein, but I have with their conclusions. I propose to offer evidence that cases of persistent albuminuria, fatty epithelia, kidney casts, amyloid bodies, oil in the blood and urine, and fat in the leucocytes, have disappeared, and the patients were permanently cured so long as they let causes alone. I refer to a case of Bright's disease as diagnosed by the medical faculty acknowledging their helplessness above described; it was prescribed to by a layman who had been similarly situated and cured. The so-called hopeless case recovered in a week, so as to go to work to his out-door employment. Here was a clear case of what Osler terms "helplessness in controlling kidney metabolism."

Some years ago the Reverend J. C. Chickering, D.D., came to me in great distress about his eyes. Oculists had told him he had amaurosis, and that in order to postpone the inevitable blindness he should not preach

---

*While respecting this dictum and those uttering it, I should testify falsely if I should say that I have not personally known cases of persistent (chronic) albuminuria, characterized by fatty epithelia, kidney casts, amyloid bodies, oil on blood slide, fat in leucocytes, to be cured by treatment.

†Osler's "Practice of Medicine," page 787.

any more. He asked if this could be avoided. The reply was that I disliked very much to go against the diagnosis, but thought if he would eat two-thirds by bulk of animal food to one-third of food from the vegetable kingdom he could preach and save his eyes from being worse. This advice was followed. He died at the age of seventy-eight, I think, of peritonitis. A short time before his death I saw him crossing Park Square, Boston, Massachusetts, crowded with street-cars, other conveyances, teams, and people. He was alone, caring for himself like any other person, and perfectly calm. He recognized me at a glance, saying that he could see as well as he did in 1872; that he had preached right along, especially to the "spirits in prison" (Concord Reformatory) on the previous Sabbath!

In 1890 I visited my native town and overtook an old native on the sidewalk. As we proceeded together he remarked his oculist told him he was suffering from glaucoma and going to be totally blind; his vision troubled him very much, and he was disheartened. I told him that it was a case out of my line, but the result in the case of Doctor Chickering was so favorable I thought my plan was worth trying. In a few words I gave him the cue, and we parted. Two years later we met upon our native heath once more. He was much elated; said he followed my directions, and his eyes were improving all the time. I told him to hold on as he was doing. In June, 1896, I saw him again. Without speaking I made signs to test his sight, which proved to be good, and that too without glasses! He informed me his vision was about as good as it ever was, and that he was giving up the use of glasses entirely. His age was then seventy-two.

Some twenty years ago a mother lay sick under a complication of diseases, in which angina pectoris was a prominent feature. The attacks were almost daily, having the typical character so graphically described by Sir B. W. Richardson, of London.* She was prostrate in bed, could not eat, and too weak to raise voice, hands, or head. The heart's area on percussion was larger than normal; the first sound presented a sonorous murmur heard towards the left; aortic sounds normal; impulse increased. The sense of constriction, suffocation and impending death was markedly characteristic, as if a giant gripped her chest. She was not expected to recover. Still, by carrying out the plans here laid down she made a good recovery, and now lives to bless her home with the sunshine of her presence!

Nearly two years ago a girl fourteen years old came under my care; she was larger than the average woman. She suffered mild attacks of catalepsy, that had persisted for more than a year, occurring frequently. She presented free oil in blood; fat in leucocytes; albumen in urine, casts, fatty epithelia very marked; anteversion and flexion of the womb, and uterine and vaginal hyperæsthesia. Had been overworked at school. Catalepsy worse during menses. This case was treated on the plans for fatty degeneration; for the alleviation of the local troubles, with iodoform suppositories and vectores until the hyperæsthesia was relieved; then the flexion was straightened out and the lesion remedied by the judicious use of the uterine sound. In three months the catalepsy permanently disappeared, and along with it all signs of fatty transformation, save fatty epithelia, and these became very few in number, and there were very few fat globules. Surely it seems that there was some connection

---

*The patient read this account lately and said it was a correct description of her case, saving the clause that asserted that all such cases died. As Sir Benjamin had entertained this lady at his house in London in 1889, I wrote him about it, referring to Doctor S. Weir Mitchell and his already alluded to experiments in producing fatty degeneration of the eyes in guinea-pigs and frogs by the subcutaneous injection of sugar dissolved in water. Since Sir Benjamin has recently died of a masquerade of fatty degeneration of the brain (apoplexy), his reply is here appended:

"DEAR DOCTOR CUTTER—Your letter gave me great satisfaction, and I am much pleased to know that your patient no longer suffers from her old enemy. You seem to have an excellent memory to keep in mind so long my 'Synthesis of Cataract.'

"When you come to London again we shall be delighted to see you, and, with our kindest remembrances to your wife and yourself,

Believe me to be, yours faithfully,

B. W. RICHARDSON."

—Post-mark date, August 17th, 1896. He died November 21st, 1896.

between the catalepsy and the fatty metabolism. The case is the more striking because there was a restoration of the bust of the chest, from its caved-in flatness and narrowed antero-posterior diameter of the thorax. There was no conventional bromide treatment, etc., by me. She had had enough of this and of conventional diet before. At last accounts (1897) she remained cured, save for a few oil globules in the blood.

I think that, as food causes were traceable in almost every case of epilepsy I have seen, it is reasonable to expect the cure of this malady to come through proper feeding. Epileptic disturbances of the sensory and motor nerve centers are met with in Bright's disease of the kidneys,—one of the worst cases of convulsions I ever saw was in a man suffering from this nephritic lesion. Certainly this clue to the treatment of such lesions unamenable to drug medication is worthy of much thought by the clinician. I present a few cases:

Case 1.—This was a *petit mal*, but big enough to wreck the brilliant prospects of a young graduate collegian. His urine showed albumen, fatty epithelia, and kidney casts—not all at once, but at separate intervals. At times the abundance of the kidney casts exceeded any I had ever met. This case was much relieved, but the patient finally abandoned treatment on the advice of a physician who interfered because of tapeworm, and did not believe as I did. The case remains uncured.

Case 2.—Girl 13 years old, epileptic, with *le grand mal*. Albumen in urine very marked; casts and fatty epithelia. She was treated according to the plan heretofore laid down, but my instructions were carried out only with great difficulty because of absence of mental control of appetite, a defect that discouraged her friends (she was an orphan), and her case would have been given up but for the persistence of the physician. For example, in spite of all warnings, she drank molasses from the jug, as if it were water, thus upsetting her treatment. With every upset the albumen, casts and fatty epithelia would reappear. Finally a promise of a nice white dress prevailed, and she tided over into such good health as availed to maintain proper psychic control. The albumen disappeared last; the casts and fatty epithelia went first. I saw her people some years after her treatment, and they reported her in splendid health. All concerned were much gratified with the outcome, and well they might be. At this writing (1897) she continues well.

Case 3.—Middle-aged man; *le grand mal;* presented all the stigmata of fatty degeneration, though not to excess; a bad case with no self-control. He would deliberately eat forbidden food and revive his epileptic seizures, and at such times he would emphatically deny having eaten anything amiss, though the morphologies of the blood, urine and sputum furnished ample evidence of his dereliction, aside from the macroscopic evidence furnished by his seizures. A peculiarity in this case was the existence of an abundant mycelial vegetation in his mouth that lined it white, and exhaled a perfume not celestial, and bad enough to knock you down if you came within reach. This case was a failure, because the right morals could not be inspired.

I herewith also present some cases of Bright's disease:

Case 1.—Four years ago an eminent surgeon was ill with chronic and acute bronchitis, asthmatic variety, and with albumen, fatty epithelia and casts in the urine. His sputum had for a long time been loaded with granular massive and crystalline gravels; also with blue, bronze and emerald-green pigments. His blood showed free oil, fat in white corpuscles, and emerald-green pigments; he was ill in bed for several months, and was treated partially on the plans here laid down,—I say partially, as, being a great favorite in the profession, he had plenty of fraternal medical advice and attention shown him, and could not but yield to their kindnesses. Still he made a good recovery, and is to-day practising in his office comparatively well at his advanced age of seventy-six! Says his urine is normal. It should be added, as further showing the character of his disease, that after his sickness he developed cataract, which has been successfully removed by surgery.

Case 2.—Some ten years ago an eminent clergyman, 64 years old, overworked as treasurer of a large missionary society, was examined because of what he believed to be "rheumatic and neuralgic pains" in back and limbs. In his blood were found: Free oil, and fat in white corpuscles; emerald-green and bronze pigments; red corpuscles somewhat adhesive; rarely massive fibrin filaments. The urine, studied two or three times a week

for several years, showed albumen, casts, fatty epithelia, protoplasmic and filamentous catarrh, and amyloid. These abnormalities were not always present together nor in large quantities, still they were positive and sufficient to class the case under this head. Diagnosis of rheumatism not sustained; the pains were neurasthenic, locomotor ataxic, and from partial paralysis.—They were Nature's warning to "look out for the engine when the bell rings," and this engine I now think was locomotor ataxia; in other words, he was in the pre-stages of locomotor ataxia. The dominie used to do two men's duties, kept at work during this illness, and did not lose a day, while others in his office calling themselves well were off on vacations, or on account of poor health. Finally his left shin was injured by striking against an open drawer of his office desk, and though it was apparently a slight affair it caused more trouble than it ought, as injuries which in health would not be noticed become grave in cases of fatty ills.—For example, the late Doctor Eisberg had his instep pinched by a tight boot, and it became the immediate cause of his death. This was because of the systemic weakness caused by the fatty metabolism. However, this case made a good recovery from his barked shin, though much against his will he had to go to bed on account of it. He was under treatment for some years, but was termed a "juicy old man" because of his splendid business abilities, literary attainments, and true, harmless, spontaneously bubbling mother wit. We could never get him closely down to business medically, right along, and when he did yield obedience the abnormal morphologies would disappear, and he would feel nicely. At the last examination his urine was slightly albuminous. Under the circumstances the success attained was splendid.

Case 3.—A young man 18 years old, with all the stigmata of fatty ills, was brought to me by his father; the mother was ignored, but I asked that she come and see me, as I felt she, of all connected with the case, should consent to it and understand the plans, because her business was to see to the food of the family. The father said, "I will see she carries out all your directions." Nevertheless the mother gave her son things to eat as she thought best; upset her husband, doctor, and son. Mothers who have for many years selected and prepared food for families come to feel that they know all about dietetics; and I still think if I could have seen this lady and explained matters the boy could have been saved.

Case 4.—About ten years ago a middle-aged widow consulted me, suffering from a complication of diseases, with a systemic condition of fatty and fibrous degeneration; had been sick a long while, and I was her last medical hope. There was oil in blood, fat in leucocytes, albumen, fatty epithelia and amyloid in urine; a sessile fibroid large as the fist at the fundus of the uterus, and anteversion; gravels in sputum; asthma; pleuritis, etc. She was put on the plans here outlined. In two months the first four symptoms disappeared. Though now a valetudinarian, she lived in comparative good health and activity. This case shows the wonders of food as a medical power.

Case 5.—About nine years ago the son of the above widow came under treatment for nervous prostration. Unable to study, he was fearful of giving up his class on this account. I found in his urine protoplasmic, filamentous and Indian club catarrh, albumen, cylinders, and fatty epithelia. The blood was not much out of normal condition. By following the usual line of treatment he was cured, and the abnormal stigmata removed; he is now (in 1897) hard at work as a civil engineer and poultry farmer.

Case 6.—About two years since a clergyman came under my charge for diabetes, as diagnosed by five other physicians. There was confirmation of diabetes mellitus with detection of albumen, cylinders, and fatty epithelia in urine. In a few months the albumen, cylinders and fatty epithelia disappeared; in a year the sugar also disappeared, and has since remained absent. The gentleman's health is fine, and he is hard at work at his professional duties in the Episcopal Church. In 1896 he spent a summer vacation in Europe.

Case 7.—Some six years ago a middle-aged, tall, lean, pale and wan business man, a great sufferer from insomnia, neurasthenia and prostration, applied to my son for aid. He was found with protoplasmic, filamentous and Indian club catarrh, albumen and casts in the urine. He cooperated faithfully with the treatment, and is now able to sleep; his abnormal morphologies have also disappeared, and at last accounts he was a well man. This instance is the more remarkable because this combination is a very hard one to cure. The lack of vital *dynamis* interferes with the carrying out of treatment which takes time and trouble.*

*Unless specified to the contrary all the cases here are mine.

Case 8.—Three years ago a lady who had chronic diarrhœa, or consumption of the bowels, for the space of twenty years, came for treatment. She presented the following evidences of fatty degeneration: Free oil in fæces; ditto in blood, fat in white blood-corpuscles; emerald-green pigments in blood; albumen, casts and fatty epithelia in urine. On the general principle of removing fermenting food, the consumption of the bowels was cured by Nature. The signs of fatty degeneration held on longer, but she is now in the enjoyment of perfect health. This record came from her fidelity, maintained under strong resistance from the outside. In the day of judgment the Lord will reward according to fidelity, not according to immediate outward results; but does not the case show the same principle of Nature in dealing with the biology of the human body?

Case 9.—Twelve years ago a man was found with protoplasmic and filamentous catarrh, albumen, fatty epithelia, and cylinders in urine. He was under great stress of mind and body, but under treatment improved and passed out of observation until about two years ago, when he was reported as having had an apoplectic attack, partially paralyzing one side of his body,—he was over seventy years of age. From the apoplectic shock he made a good recovery. Most of the time he has been careful of his diet on the lines here laid down, but not being under medical inspection he probably wavered from it somewhat. The hemiplegia seems to prove that the degeneration had affected the muscular coats of the cerebral arteries; but his fine condition at the age of seventy-four, when fatty ills are normal, to use a Hibernicism, is certainly good evidence of the truth of the doctrines here laid down. Medically speaking, there is more devolution than evolution; that is, patients left to themselves naturally tend to a lower standard for themselves when they have no expert to coach them medically. The principle shown in this case is that by stopping causes, sustaining Nature, and oiling the machine therapeutically fatty degenerations will disappear if given half a chance so to do.

Case 10.—Professor Louis Elsberg, M.D., about ten years ago undertook the line of treatment here laid down for albumen, casts, and fatty epithelia in the urine, and for oil in blood and fat in white blood-corpuscles; his appearance was waxy and lardaceous. In a few months these abnormal signs were gone, and he was pronounced well. Then he said, "I am now going to eat anything I like!" These words cut me to the heart, for he was my beloved friend. I knew he had uttered his death warrant. No words of mine availed to change his purpose, and he decided to live to eat, not eat to live. Of course I could take no more responsibility after this! The next I knew of him he had a very bad sore foot, the trouble being caused by wearing a pair of new tight boots. I examined the lesion, but it was so trifling it did not appear to sustain his assertions and asservations of its great painfulness. But he was right. He was again in the toils of systemic fatty degeneration, and unable to resist a small injury like this! The foot never got well. Unwisely he worked hard, doing, in addition to his own duties, the labor of a professor of a post-graduate clinic, who disappeared at that time and never returned; exposed himself to inclement weather, and fell ill with bronchitis and pneumonitis. All the earnest, faithful, multifarious efforts, lovingly and persistently rendered by many physicians, availed nothing, simply because his fattily degenerated tissues had not force enough to resist disease and react to stimulants and tonics. He died much lamented, as he was a very eminent physician, a whole-souled man, and of rare philosophical character. Oh, if he could have adhered to his diet he would have continued to bless my life with his soulful richness! *Eheu fugaces!*

Case 11.—A millionaire of 72 years was treated on these plans for albumen, fatty epithelia and casts in his urine; for oil in the blood and in the leucocytes; for apoplexy of the skin,—*i.e.*, rupture of the small dermal arteries so that he was marked all over his body with stellated blood-spots ecchymosed under the integument. He had arcus senilis and difficult vision; also alcoholism. By close and careful attention the stigmata of fatty degeneration were removed so that he was called well; but it seems that he resorted to domiciliary tippling to a large extent, which upset all care and treatment, as naturally might be expected. He did not live long after I was dispensed with, though he had plenty of attentive physicians, who understood not his case. They believed not at all in the idea that fattily degenerated tissues can be restored if the causes are stopped, the machine oiled, and Nature thoroughly sustained. This is history, not mere complaint, for the professional gentlemen acted up to their knowledge and convictions. Under the alcoholic environment, which was kept secret for a long time, it is a wonder that the man fared as well as he did. I think this case shows something of the relations of alcoholism to fatty ills.

Case 12.—The wife of the patient in Case 11, a nice, corpulent old lady, presented the macroscopic and microscopic signs of fatty degeneration without alcoholism or dermal apoplexy; but she had very troublesome epistaxis, which the rotten condition of her blood-vessels made it difficult to arrest in the spongy tissues of the nose. She was a kind, good old soul, and did the best she could. Much distressed about her husband's alcoholism and illness, she could not check it. Still she improved somewhat in health on the plans here laid down, but the loss of vital force from worry strain and disappointment served to block her course. She lived but a short time after her husband dismissed me.

Case 13.—Mrs. E. D——, 45 years of age, asthmatic for twenty-six years previously, had anteversion of the uterus, and presented fatty epithelia, casts and albumen in urine. She was treated specially for her asthma, which in two years was permanently cured; along with it went the fatty epithelia, casts, and albumen. She was restored to fair health, when she felt that her wardrobe should be completed by a full-length sealskin cloak. While traveling for this purpose she took cold from exposure and weariness. She had a peculiar sickness, in which cerebral symptoms predominated. Delirious and fatuous, she died.

Case 14.—Judge ——, 63 years old, had been attended by eminent medical talent, that made an agnostic diagnosis, so far as the patient was concerned. There was albumen with fatty epithelia and casts in the urine; in the blood oil, and fat in the leucocytes. Heart's impulse and area of dulness on percussion increased; sounds muffled and distant; no valvular lesion. The patient was large and fleshy, weighing over two hundred pounds. When the diagnosis was made and reported to him, it was met with the statement that his physician had told him there was no cardiac disease nor anything the matter with the urine, especially no albumen; but tests made in his presence proved the contrary. When the urine was referred back to the collegiate expert the presence of albumen was admitted, and not before. He improved under treatment, but all the while was consulting and hobnobbing with the physicians who had made the aforesaid diagnosis without any hope of a cure. The effect of this cross-purpose work was bad: he gave up the treatment here laid down, and died as his physicians said he would die; thus proving the correctness of their prognosis and the futility of efforts to cure, when one physician is pulling one way and the others another! Such doings spoil chances. These things are said, as before, by way of history, and not of censure; the history of all advances in knowledge is filled with like instances. Only it seems like a dog-in-the manger business, where there is a most valuable human life to be saved.

LOCAL TREATMENT OF GASTRIC DISEASES.

BY J. M. G. CARTER, M.A., M.D.

As in every other department of medicine and surgery, so in the treatment of diseases of the stomach great advances have been made. The general plan of treating diseases involving the mucous membrane of the stomach, as it is practised to day, may be said to be local; that is, treatment is applied directly to the mucous membrane for the purpose of securing immediate local effects. In discussing this subject, however, it must not be assumed systemic treatment should be neglected; on the other hand it may be urged that the administration of general remedies should not be omitted because of the introduction of local treatment; indeed in many instances the general or systemic treatment is paramount.

When is remembered the fact the mucous membrane is a covering for the inside of the body as the skin is for the outside, and that the structure of these two coverings is similar in many particulars, the aptness of the comparison just drawn will be more apparent; it would appear that the principles of treatment of these two structures are fundamentally the same, proper allowance being made for difference of function.

Modern surgery requires, first of all, that injured or inflamed areas be thoroughly cleansed; this principle applies to all grades of injury, whether mechanical, thermal, chemical, or bacterial. Surfaces can be easily washed, cavities with great difficulty. Who to-day would treat catarrhal or inflammatory conditions of the nose, throat, mouth, vagina or bladder without thorough antiseptic cleansing? Then why should not the intestines and stomach receive just as careful attention? Efforts to cleanse the gastric mucous membrane or apply some treatment locally have been spasmodically made from time to

time for nearly two and a half centuries. About two hundred and forty years ago Rumsæus used a stomach-brush for removing the mucus from the gastric walls in certain catarrhal conditions, especially in those cases due to alcoholism. Fabricius ab Acquapendente made similar efforts; and the employment of the stomach-brush became so common at one time that patients used it upon themselves.

John Hunter, nearly one hundred and fifty years ago, used catheters to introduce drugs into the stomach. The English surgeon Bush (1822) was the first to attach a pump to the tube for the purpose of emptying the stomach in cases of poisoning. The stomach siphon, so popular now, was not used however until 1829, when it was introduced by Arnott. Sommerville, Blatin, Constatt and others employed such measures, but it was not until Kussmaul published his researches just after the close of the American civil war that the utility of this instrument was recognized by the medical world. He drew the attention of the profession to the value of the tube in the treatment of dilatation of the stomach, and since that time many eminent men have contributed to the literature of this subject, prominent amongst whom are Oser, Leube, Ewald, and Boas, and several French and American authors.

The stiff tube was in favor to within a quarter of a century. In 1875 Ewald introduced the soft tube, which grew so rapidly into favor that few operators now use any other, and consequently the range of application of this method of treatment has been greatly extended.

The great value of this method lies in its adaptability. Antiseptic washings by means of the stomach-tube have become common. The object is to cleanse the surface of the njured or inflamed mucous membrane so that proper healing or curative agents can be applied; but this cleansing must be thorough to be of great value. In dilatation not complicated by chronic gastritis, ulcer, or cancer, the removal of food débris and liquid accumulation may be all that is expected, and even in functional dyspepsia it may be a chief object; but in chronic gastritis and the early stages of cancer and ulcer the great value of the douche lies in its germicidal effects. To cleanse the mucous membrane of all detritus and diseased or morbid products is not sufficient to produce a cure. In fact, there is danger to the patient if the tube be used in ulcer and cancer, even in the early stages; and unless bacteria can be destroyed the risk should not be taken. If bacteria can be destroyed, and perforation avoided, good may be accomplished and life prolonged, if not saved. This cleansing process is exactly in accordance with what is taught by the advocates of asepsis in surgical procedures. A wound, an ulcer, an inflamed surface, a diseased cavity, or a neoplasm is not clean in the surgical sense until all foreign material, débris, or detritus is removed and all bacteria and bacterial products destroyed. The latest advances in the treatment of diseases of the stomach are in the line of an attempt to reach the surgeon's high ideal.

To accomplish this result the ingenuity of the profession has been taxed. The use of the ordinary germicides in sufficient strength to accomplish this purpose in the stomach would be a dangerous and frequently a fatal undertaking. The more exposed areas may be very well cleansed by streams of sterilized water, solutions of soap or of some alkali, or various weak antiseptic solutions conveyed through the single or double tube. In many stomachs an amount of force or an amount of liquid sufficient to secure good results will cause such distress that the patient is unwilling to have the operation repeated. Even when patients are willing to suffer some inconvenience it is so difficult to dislodge bacteria and their products from the folds and follicles of the gastric mucous membrane that the operator cannot with the usual means promise a cure. A hot three-per-cent. solution of boric acid or one-fortieth-per-cent. solution of bichloride of mercury may accomplish good results in many instances. Danger, however, attends the use of so strong a solution of the bichloride of mercury, and many physicians and surgeons believe that a three-per-cent. solution of boric acid or soda bicarbonate is little better than sterilized water.

What is needed is a germicide which can be used in strong enough solution to absolutely destroy bacteria without exciting any

ill effects upon healthy animal cells This property is claimed for hydrogen dioxide and also for watery solutions of ozone. Ozone is known to be a powerful germicide, is more abundant in the atmosphere in healthful periods, and present in smaller proportion during the prevalence of epidemics of infectious diseases. Obstinate ulcers which have been abandoned as incurable, according to Andreoil have been healed by ozone. It may be employed in five- to eight-per-cent. solution with the double tube, allowing the reflow pipe to exceed or at least equal the inflow. The rapid destruction of bacteria and morbid products by this agent leads to the belief its cautious use in gastric and intestinal diseases may greatly reduce the mortality in this class of ailments—the caution required is not of the kind suggested by other germicides, and it is not poisonous; but the rapid generation of gas may produce distress if proper outlet is not provided or the amount used kept within proper limits. The use of the double tube provides the necessary outlet for the escape of the gas, and any quantity from one to four quarts of a five-per-cent. solution may be used two to six times a week. A more simple and frequently more satisfactory method of treatment, especially for the patient's use at home, is:

Half an hour before each meal give eight ounces of a warm two- or three-per-cent. solution of hydrozone; then insist upon the recumbent position for five minutes; then turn on the right side for half an hour,—slight distress need not cause alarm. After eating, some healing preparation may be given with the expectation that the mucous membrane will be in better condition to receive it.

This method may be used in the treatment of ulcer, the early stages of cancer, chronic gastritis, and bacterial forms of functional dyspepsia. It is to be hoped that the good reports of this method of dealing with gastric diseases may be confirmed. In my hands it has proved very valuable in both gastric and intestinal diseases. I cannot speak more positively until I have had more extended experience, but the outlook is encouraging.

Chicago, Illinois.

NOTES ON SUICIDE.

BY C. C. MAPES.

"When some suffering wretch, wild with pain, crazed with regret, frenzied with fear, with desperate hand unties the knot of life, let us have pity—let us be generous."

The present extremely prevalent public suicidal tendency is the writer's only apology for the following notes. As to whether it is an exhibition of cowardice or bravery to deliberately and intentionally commit the act of self-destruction will not be discussed, nor is it my intention to attempt to prove or disprove the justifiability thereof under any circumstances. It is heartily condemned by most writers of the day, although a few authorities maintain that, under certain conditions, it is not only justifiable but logical, proper, praiseworthy and honorable; the latter, however, it may be said, represent a considerable minority; a report before me shows that among many expressed opinions, only two countenance, uphold or praise the act under any circumstances.

Euthanasia, while closely allied to the subject under consideration, and which may be entitled to mature thought, based upon conclusions deduced by careful, conscientious investigators, can only be mentioned in this connection, and its merits and demerits discussed on some future occasion, *dextro tempore*. It must be admitted, however, that good arguments can be produced both *pro* and *con*.

The term suicide, denoting the act of self-destruction, is derived from the Latin words *sui* (of one's self) and *cædere* (to kill); the legal expression is *felo de se;* Italian *suicidio;* etc. At just what period the word "suicide" was first employed to represent its present meaning it is impossible to state with any degree of certainty. There seems to be no record of its use, however, until within the last century (Des Fontaines).

The subject demands attention from several aspects: Medico-legal, legal, moral, sociological, etc. The Penal Code of New York State (1884) treats of suicide in the following language:

Section 173. Although suicide is deemed a grave public wrong, yet from the impossibility of reaching the successful perpetrator, no forfeiture is imposed.

Section 174. A person who, with intent to take his own life, commits upon himself any act dangerous to human life, or which, if committed upon or towards another person and followed by death as a consequence, would render the perpetrator chargeable with homicide, is guilty of attempting suicide.

Section 175. A person who wilfully, in any manner, advises, encourages, abets or assists another person in taking the latter's life, is guilty of manslaughter in the first degree.

Section 176. A person who wilfully, in any manner, encourages, advises, assists or abets another person in attempting to take the latter's life, is guilty of a felony.

Section 178. Every person guilty of attempting suicide is guilty of felony, punishable by imprisonment in a State prison not exceeding two years, or by fine not exceeding one thousand dollars, or both.*

The law further states that it is not a defense to a prosecution under Sections 175 and 176 that the person who took, or attempted to take, his own life was not a person deemed capable of committing crime.

From a legal standpoint it would seem that it is a punishable offense either to attempt self-destruction, or to in any manner abet or assist another in committing suicide; the law makes this very plain, but it does not define the means by which such assistance may be rendered. The point I desire to emphasize is, that the daily press is undoubtedly responsible for a large percentage of suicides, by virtue of publishing the *minutiæ* of such crimes, giving details as to the *modus operandi*, even the anatomical region attacked, etc.; yet I cannot find a single instance in which the secular daily has been arraigned as an aider or an abettor, nor have I heard such a procedure suggested. Is it not the intent of the law to punish all alike? If, then, the effect upon the morbid mind of a despondent individual of a glaring published account of one suicide is sufficient to cause the latter to commit the act of self-destruction, is not the secular daily culpable?†

Without the suggestive published account the person might not have committed the deed. Surely this is a legal question which should be carefully investigated. My own opinion is that the secular press should by some means be prevented from publishing reports of suicides, as well as other kindred crimes; and if the present laws are inadequate they should be so amended as to meet the indications; moreover when so amended they should be enforced to the letter, making examples of all publications that refuse to eliminate such reports from their columns.

In this connection I beg to quote a few paragraphs from an editorial in the MEDICAL AGE,* under the caption of "The Daily Press in Relation to Crime:"

As an incentive to suicide, the effect of the daily press may be emphasized by the following: Recently in a neighboring city, a man aged fifty-seven years, being despondent, out of work, and tired of life, committed suicide by swallowing a quantity of carbolic acid. The morning paper published the customary two- or three-column account of the unfortunate circumstance, with flashing double "scare" headlines—chiefly gratuitous on the part of the ingenions and imaginative reporter, life being extinct when the suicide was discovered, so that the *facts* were absolutely unobtainable. What was the result? In this same city, during the next succeeding seventy-two hours, five additional human lives were cut short by identically the same method, plus in some instances the additions outlined by the reporter, the subjects ranging in age from nineteen to sixty-five years. Is not, then, the assertion warranted, that the depressing effect of the glaring published account of the first suicide upon the morbid and impressionable minds of the additional five prompted them to end their existence and to adopt the same means? And may we not also assume that in the first instance the man in a fit of despondency was actuated to the deed by having read in the daily press the report of a suicide by similar measures?

As already stated, the newspapers are not content to publish brief notices of local crime, suicide, etc., but the circumstances are magnified and distorted until a proper degree of sensationalism is reached, in proportion to the intensity of the pernicious and lying element and the prominence of the individual or persons connected therewith, and then transmitted to every daily in the land; thus the demoralizing effect, instead of being confined within the narrowest limits, is made general.

Many other instances might be cited as evidence that suicide has undoubtedly been actuated by the daily press, but further illustration seems unneces-

---

*Since writing the above, I am reminded that a later statute in New York makes the punishment for attempted suicide five instead of two years penal servitude.

†THE MEDICAL AGE editorially notes: "The Medical Society of Berne, Switzerland, has made the suggestion that an Act be formulated forbidding all press notices of suicides, inasmuch as it has been repeatedly observed that *felo de se* epidemics arise from suggestions afforded by the reports of the sensational general press."

*September 25th, 1896.

sary. It has frequently been remarked that suicides "come in schools," following the same identical methods, whether aided by pistol, knife, noose, poison, or what not; and if the influence of the daily press in promoting the same is what it appears or is assumed to be, is it any less criminal because intended to minister to appetites depraved? Is not the public press thereby guilty of a degree of murder? Can it be doubted this is the influence that causes suicides to so frequently follow each other in quick succession, especially when it is found the death-dealing method, and even the anatomical region attacked, are identical in each instance? Surely such instances are of too frequent occurrence to be considered merely matter of coincidence.

From a statistical point of view, it is of the greatest importance (were it possible) to ascertain just what percentage of suicides can be traced to examples depicted in the public press. I am impelled, from my studies of the subject, to believe that the number so influenced is very large, though I am able to present no accurate estimate.

As to other causes of self-destruction, they are legion if one can believe statistics. Some writers insist that the act is always due to disorder of the mind at the moment of its accomplishment—a theory I believe to be entirely erroneous and untenable. Certainly we can recall suicides committed when the perpetrator was "clothed in his right mind," sane and sober, every obtainable evidence being confirmatory. That suicide is often committed while the person is temporarily unbalanced mentally cannot be denied, but to say that the element of insanity is present in *all* cases is unwarranted by facts.

The custom, if it may be so called, of self-destruction has existed in greater or less degree from the earliest ages, it being mentioned by nearly all the older writers of history and medicine, though no statistical information seems to have been systematically collected until in more recent years. "It would appear that peoples of antiquity were so taught by their religion that they could look upon the act as logical and perform it with stoicism." No country or nationality seems to be entirely exempt, though few cases are recorded in the history of the Hebrews. It has always been rare in Persia, and is also exceptional among the Turks. The religion of Buddha justifies suicide, and under some conditions regards it as honorable and praiseworthy. Oriental fanatics (India) who believe in the transmigration of souls seek an improvement in their condition and freedom from ills by courting death. Brahmins are said to have abandoned to a great extent their terrible custom of prostrating themselves before the car of their gigantic idol Juggernaut to be crushed to death, though it is still occasionally done; and in some remote districts widows still throw themselves upon the funeral pyres of their husbands.

It is related as a historical fact that inhabitants of the Isle of Coos poisoned themselves after reaching the age of sixty years, so that the younger could have greater abundance. Suicide is common in Greece, China, Japan, Africa, etc., and is said to be increasing in all civilized countries. It was taught and defended by not a few authorities in the earlier ages, and heartily condemned by others during the same period. The Bible records the self-destruction of several persons, notably Samson (falling of the temple); Saul (fell on his sword); Judas (hanging), etc.

It is stated on good authority that not less than sixty thousand persons kill themselves annually in Europe. Using this as a basis and calculating that the same ratio exists in this country, we may figure that about 10,000 to 10,500 suicides occur yearly on this side of the Atlantic. According to reports of the Board of Health of New York for the year 1886 there were recorded 223 deaths from suicide, 165 being of foreign birth (over half the latter were German); and of the total 172 were males, 51 females (Allen). Morselli's tables show that of all countries Saxony furnishes the greatest number of suicides based upon its population. The obtainable statistics of all civilized countries are said to show a gradual increase in percentage.

With further reference to the causes of suicide: While insanity is said to be present in the vast majority of instances, as already shown I believe the statement unwarranted by facts, though it is nevertheless true many obscure cases are difficult of explanation upon any other hypothesis. In many instances there seems to be an utter lack of assignable motive, the environment of the individual, his surroundings, station in life, social, finan-

cial,* moral, domestic and other relations, being favorable and apparently such as would be conducive to health and happiness. In such cases there must be an underlying suicidal tendency or incentive to which the attention of the closest observer has not yet been called, as no description hitherto given seems to conform to the conditions present. The act under such circumstances has been variously attributed to: Hereditary transmission of mental defect; emotional insanity or impulse; organic disease; excesses; venery; onanism, etc., all of which may induce a morbid condition; but as before intimated, these theories do not admit of a clear elucidation of the act from any standpoint.

Several epidemics of suicide are recorded in history, notably in Mexico and Peru (after the Spanish invasion); in Mansfield during 1677; Versailles in 1793; Rouen in 1806; Stuttgart in 1811; etc. It is also stated that in Paris several years ago five inmates of a hospital hanged themselves upon one crossbar within a fortnight. Suggestion and example probably have much to do with causing suicidal epidemics, as well as double and multiple cases, and this prompts me to revert again to the influence of the daily press, which is unquestionably a pernicious, hitherto overlooked, causative factor, for reasons already given; yet scientific writers say: "No encouragement is given to the act in enlightened lands, but on the contrary all laws, both human and divine, are strict in its forbiddance." What possible good can be accomplished by any law if its enforcement is never realized? There are already too many dead laws; such matters are governed far too extensively by precedent; precedent might carry us back to a time when masses of people, under the influence of religious or philosophic beliefs, following customs of their forefathers for generations, have in great numbers become the subjects of self-destruction, but that would not establish the correctness and justice of such a precedent *de jure* or *de facto*. In matters of vital importance, precedents established centuries ago should not be allowed to govern; statutes based upon the most enlightened principles should supersede, and if no legislative act exists which will adequately cover the case, one should be immediately authorized and adopted.

It is said that education predisposes to suicide; that it has been conclusively shown more attempts occur in centers of civilization, in cities, among the most highly educated classes, than in the country where people are not so well informed and have as active minds, etc.; that among savage races suicide is comparatively rare. Such reports are defective unless accompanied by data to prove the statement based upon the comparative population of city and country.

Occupation is probably entitled to some consideration as a predisposing causative agent. Morselli found the greatest number of suicides among literary and scientific men, or brain workers generally, professors, teachers, etc.; next among the military; finally among the trades. The condition in life also has some influence as a causative factor, as have climate and temperature, but the importance of these three elements is inconsiderable.

As to season in which the greater number of suicides occur, summer stands preeminent, the favorite month being June, with May and July next. Various theories have been advanced to explain the greater frequency of suicide in June, but such are mainly unsatisfactory and untenable, the only one entitled to consideration being the preponderance of neurotic troubles during the heated term. Sex and age should also be mentioned in this connection. The average age at which suicide is most common differs materially as to sex, being in women probably about twenty years, in men much older. Ogle makes the following statement:

> Few would imagine that one out of every one hundred and nineteen young men who reach the age of twenty dies ultimately by his own hand; yet such is the case. One out of every three hundred and twelve girls who reach the age of fifteen ultimately dies by her own hand. Statistics show that not quite three men kill themselves to one woman, and that it is common to all periods of life, excepting the very young; that the period from the twentieth to the fiftieth year has the most instances.

* The following is clipped from an exchange: "Suicide as a sequel to financial failure is much more frequent in the North than in the South. The average Southern business man has not yet reached that stage of 'higher culture' where wealth is regarded as the only thing in life worth living for."

Attempts have been made upon their own lives for trivial causes in children of five and six years.*

Concerning the determining causes proper: Insanity has already been mentioned. "It is often by suicide that the melancholiac rids himself of his imaginary woes, and the maniac escapes from the imaginary foes with whom his hallucinations surround him." Suicide is not uncommon during the course of a protracted and severe illness; "the body, worn out with suffering, at last affects the mind; or the patient, believing his disease incurable, prefers to make an end of all his woes, and fly to others which he knows not of."

The diseases during which suicide has been noted are: Those of the digestive organs, liver, etc., cancer, tuberculosis, urinary affections, loss of vision, and various chronic affections; it has been known to follow castration, likewise amputation of penis. Financial troubles rank among the prominent determining causes, as do also drunkenness, poverty, love betrayed or disappointed, religious excitement, and last but perhaps not least, jealousy. I believe jealousy should be accorded a more conspicuous place in the category of the determining causes not only of this but other crimes. Hate, pride, shame, revenge, domestic troubles, remorse, dishonor, misfortune, grief, pain, may all lead to suicide.

As to the *modus operandi*, almost every imaginable method and means have been brought into requisition, most cases being to a certain extent influenced by surroundings and occupation of the individual, except where suicide occurs from suggestion or example, as heretofore shown. The death-dealing method not influenced by example varies in different countries, poison taking first place in some, the pistol in others, hanging in still others, drowning, stab-wounds, jumping from high buildings, towers, bridges, etc. The poisons chiefly employed are laudanum, arsenic, strychnine, prussic acid, carbolic acid, "rough on rats," oxalic acid, and many other well known effective agents.

The following classification in order of precedence seems to be the most reasonable, based upon my own observations, not taking into consideration statistics formulated by others: Firearms; poison; hanging; drowning; cutting instruments; jumping from heights; inhalation of deadly fumes, etc.

Granting that the element of insanity plays a part in the majority of suicides, it appears plain that the early and careful treatment of all mentally unbalanced persons in specially equipped hospitals or asylums would be the most rational preventive measure and tend materially to decrease the number of self-destructive acts. But this will not so aptly apply if one considers all such individuals morally and legally responsible, which I believe to be largely true; in other words, that the "insanity dodge" is worked too often as an excuse for all manner of crimes. Of course each case must be decided on its merits, but with a careful and painstaking examination in competent hands, I think the element of insanity as a cause of suicide as well as other crimes will be largely eliminated; at all events the proportion of cases where insanity enters as a causative factor will be greatly reduced, and the perpetrators of crime punished as responsible individuals. At the present day a conviction can hardly be secured for any crime because of the persistent arguments of the insanity theory advocates.

A brief analysis of 50 recent cases (39 males, 11 females) shows the following results:

Methods employed: Firearms, 17; poisons, 11; hanging, 7; drowning, 5; all other methods, 10.

*According to Ogle the percentage of suicide in young persons of both sexes is higher than generally supposed, and he records several cases between the ages of five and ten years. He also says: "Child suicide is apparently of more frequent occurrence on the Continent than in the British Isles."

While this article was being prepared two attempted suicides in female children under thirteen years came to the writer's notice. Both were for trivial causes; the means employed in one being "rat poison," in the other "arsenic" which had been kept in the house for the extermination of vermin.

A question of vital importance occurs in this connection, *i. e.*, What part did the daily press play in these two cases? Possibly the children overheard older members of the family discussing such matters, and not understanding their full import, decided, under the stimulus of some real or imaginary trifling wrongs, to test the efficacy of the poisonous drugs.

City, 41; country, 9.

Causes: Financial troubles, 13; jealousy (murder and suicide), 12; despondency, "tired of life," etc., 10; other causes, 15.

It will be observed from the above that the proportion of males is greater than given in former tabulated statistics, which may be accounted for, in a measure at least, by the general depression which has existed in financial and commercial circles during the past year or two. It will also be seen that shooting takes the lead under the head of "method;" this is partly due to the increased percentage of males, and the further fact that twelve out of fifty were cases of murder and suicide, in all of which the death-dealing method was gun or pistol. With these exceptions, the results do not materially differ from those formulated by other writers.

Many of the ideas suggested in this paper are based upon a contribution by Doctor Charles W. Allen, published in the Reference Handbook of the Medical Sciences (1895), to whom it is desired full credit be given.

Louisville, Kentucky.

THE LIZARD STORY.

The venerable story about a lizard living for a time in the stomach of a human being and causing great discomfort thereby has made its appearance once more.

This time it is told that an unfortunate young woman residing in the western part of New York, after an illness of two years from "stomach trouble," vomited a dead lizard, and instead of recovering, as is usual in such cases, died soon after.

The vitality retained by this and like stories shows that popular education in matters physiological goes on very slowly indeed, and that even editors who, although they may be engaged only in the supervision of news, are supposed to have a decent general education, miss the very ordinary fact that air-breathing reptiles cannot live without air.

The "lizard" or "snake" when traced down to his lair either vanishes into nothingness or proves to be at the worst only an ordinary anærobic worm. — *Druggists Circular.*

THE MEDICAL AGE.

A SEMI-MONTHLY REVIEW OF MEDICINE.

—PUBLISHED BY—

WILLIAM M. WARREN, Medical Publisher, Box 470.

All communications regarding papers, reports, etc., should be addressed to the Editor of the MEDICAL AGE, P. O. Box 470, Detroit, Mich.

Matters relating to advertising space, etc., to be addressed to the publisher, William M. Warren, Box 470, Detroit, Mich.

The editor cannot engage to return rejected manuscripts or to correspond with the writers thereof, unless such are accompanied by sufficient postage.

DETROIT, MICH., SEPTEMBER 25th, 1897.

Editorial.

ALCOHOL IN THERAPEUTICS.

No problem of daily practise can be of greater importance to the medical man, or to his patients, than the question of the use of alcohol, whether as a beverage or as a remedy. The *Medical Press and Circular* recently pertinently remarked that "on the successful solution of this matter undoubtedly hinges the fate of many a patient."

Concerning alcohol as a routine article of consumption, most people seem to have arrived at a common ground of agreement, viz., that for the average man while unnecessary as a beverage, yet if partaken of only in moderate quantities no great amount of bodily mischief need be looked for.

This position seems clear and unassailable, but, as the *Press* remarks, "other complications assert themselves as soon as one turns away from the case of the average individual:"

> For a long time past the idea appears to have been growing in the minds of certain sections of the community that the supplying of alcohol by medical men is one of the great sources of the national scourge of drunkenness. As to any sweeping charge of this kind brought against the profession, most reasonable temperance advocates will agree with the opinion expressed by Doctor Norman Kerr before the Society for the Study of Inebriety, that such a proposition could not be sustained for a single moment. Nevertheless, it must be admitted that in a small margin of cases—that is to say, where patients are wanting in moral control—the foundation of drinking habits may be traced to the directions of the physician to add an alcoholic beverage to the ordinary diet. Bearing that possibility in mind any medical man who gives such advice will do well to state definitely at the time the exact dosage, with the time of administration, and the continuance of the remedy. Every conscientious

practitioner in the kingdom, however, has probably long since recognized his responsibility and defined his line of action in this serious matter. For all that, there can be little objection to the occasional reminder raised on public platforms by those interested in social reforms, provided always that their utterances be pervaded with an equal meed of that spirit of temperance which they uphold so strongly in other directions; so much may be said for the dietetic use of alcohol in the field of medical practise, a point that differs widely in many ways from its administration as a pure drug. The main, indeed almost the sole, use of alcohol in therapeutics is as a stimulant. This remedy, it may be generally stated, is, when properly handled, rapid, safe, pleasant, and fairly trustworthy. Its use has never been satisfactorily replaced by any other member or members of the group of diffusible stimulants, however excellent the latter may appear in theory. At the same time, few advanced physicians would nowadays be found ready to defend the routine use of alcoholic stimulants in sthenic diseases. There can be no question whatever that a great many persons suffering, let us say, from enteric fever, would get well without the aid of alcohol; but, on the other hand, he would be a bold, not to say a rash, physician who would withhold brandy from a typhoid patient with a failing heart. Here, as in all other matters, the philosophical man of medicine must aim at the golden mean of conduct. How and when to use his remedies, when and where to prevent their abuse, must always be to him matters of pressing moment. If the medical profession were to leave off ordering alcohol in any shape or form because of its occasional disastrous after-effects, then by a parallel process of reasoning they would have to give up morphia, cocaine, sal volatile, chloral, and other valuable remedies open to similar abuse by weak-willed individuals. In seeking to arrive at sound conclusions as to the relation of alcohol to routine medical practise, we are faced at the outset with the extreme difficulty of getting exact evidence. Statistics as to relative mortality in this or that disease treated with and without alcohol are apt to be extremely fallacious. When a lecturer, for instance, quotes a set of figures to show that the greatest number of deaths in, say, typhoid fever, occurs among those who have had the greatest amount of alcohol, he is apt to overlook the pertinent fact that the remedy in question has probably been reserved for the worst cases. The foregoing is merely furnished as a type of fallacy common upon temperance platforms, where logic is usually less conspicuous than many other excellent and desirable qualities.

It has always been essential that the dealing with the alcohol question should be done with a calm and philosophical spirit. In these latter days there are a large number of medical men who believe that alcohol is not a food *per se;* but even a major proportion of these gentlemen admit that it may be of value in the prevention of waste. Medical men generally insist that the therapeutic value of alcohol is mainly as a cardiac stimulant.

One thing most shameful is that teachers of therapeutics as a rule either practically ignore this subject or else treat of it from an individual and narrow standpoint, merely reiterating statements as truths for which they have no better foundation than individual prejudice. The bearings of alcohol in health and disease are something that should be carefully, calmly, and philosophically explained to every medical student, for it requires practical handling after the individual has entered upon his medical career.

EVOLUTION OF THE MIND.

At the recent meeting of the British Medical Association, Doctor Richard Maurice Bucke, Superintendent of the Asylum for Insane at London, Ontario, delivered the address in the Psychology Section, in which he spoke of psychology as the most interesting and comprehensive of the sciences. Incidentally he alluded to the evolution of the human mind as follows:

The human being at about two years of age has reached the mental plane of the higher animals. At the average of three years in the human individual, self-consciousness is born, and the individual from the point of view of psychology has become a human being; but the color sense, the sense of fragrance, the musical sense, and the human moral nature are all acquired at a later period of life. Many thousand years must have elapsed since the first development of self-consciousness in the human race. Memory and simple consciousness appear a few days after birth; the use of tools twelve months after; shame, remorse and a sense of the ludicrous at fifteen months; and it is to be hoped that in every instance the time of the appearance of the faculty in the infant corresponds with the stage at which the same faculties occurred in the ascending animal scale. Three laws are worthy of notice, and govern the acquisition of new faculties in any given case: First, the longer a race has been in possession of a given faculty, the more universal will that faculty be in the race: Second, the longer a race has been in possession of a given faculty, the more firmly is that faculty found in each individual of the race who possess it: Third, the state of dreaming seems to reveal the fact that

in sleep such mind as we have differs from our waking mind, especially by being more primitive—in dreams we pass backward into the pre-human mental life.

After referring to the probable periods at which the distinctive human faculties appear in the race and in the individual, and to the broad division of consciousness into simple and self-consciousness, the speaker added:

The mind is still growing. No man can ever say positively that his theory is the true one, but I am prepared to say of the above hypothesis that, if accepted, it will enable us to understand something of the phenomena of mind as we observe it. In this idea of evolution lies enveloped the mystery of the past, the explanation of the present, and the sure prescience of the future, giving what we were, what we are, and what we shall be. If this hypothesis be correct, then all forms of insanity, including all forms of disease, are cases of atavism. First, by slow and devious stages taken in darkness, our remote ancestors climbed to consciousness. After another long interval they reached self-consciousness. But that cannot be the end—the cosmic consciousness could not stop there Our old mental faculties are fading out, others advance to greater perfection alongside of them, others are only now springing up. So-called telepathy and clairvoyance seem to be specimens of such commencing faculties; so also the phenomena of spiritualism. The labors of the Society for Psychical Research have made it plain that the phenomena are real and well authenticated. To me these are cases in which a given human being has faculties which are not commonly preserved.

MEDICAL RESOURCES OF BRITISH GUIANA.

A recent explorer in British Guiana praises the country for its mineral and vegetable wealth, but admits that the greater portion of the *hinterland* is a country whose terrors can only be overcome by an army of woodsmen, engineers and railway constructors that will bring it within the reach of man.

Regarding the fauna and flora he declares neither the naturalist nor the botanist has exhausted the marvelous resources of this region. He has frequently "encountered lizards, moths and beetles that are not described in any of the standard works; this is true to a far greater extent of the herbs." He adds, one can only realize the possibilities of Guiana's medicinal flora by comparing the experience of modern medical practise with the work of the Indian *peiman*, to whom the most pernicious of the local fevers are amenable. "He can cure the ugliest of wounds, even when gangrene has taken place, by a magical touch; more, he can neutralize the deadliest serpent's poison if he operates in time; and he has a system of inoculation against the effect of snake-bite, the efficacy of which I have myself witnessed on many occasions. And all this is done with vegetable preparations—plus a great deal of mummery."

Malaria is the *bête noire* of colonist and explorer alike, and greatly to be dreaded. One can smell and even feel it as it rises and hangs in a dark filmy vapor on the motionless air. If the system is at all predisposed it is apt to soak in, "but in such case he ought not to be there."

The real cause of infection is the mosquito, which abounds in the forest; and unless one can protect himself with netting from his attacks he runs a considerable risk. And how many can do this successfully night after night for weeks and perhaps months? Only a fractional percentage of pioneers have met a tragic end from the reptile's lethal lance, or been devoured by the sneaking alligator; but hundreds of strong men in the bloom of health have been punctured by the mosquito's tiny sting at night, and awakened with fevered blood, never to leave their hammocks more. Truly here we have the "pestilence that walketh by night," and hence much of the great *hinterland* of Guiana is a land of death.

That the foregoing contains a large measure of truth is self-evident; that the conjectures regarding malaria are based upon something more than probability is equally evident; but the tale that the deadliest serpent's poison can be neutralized by any vegetable preparation becomes absurd when viewed from the points of pathological activity and physiological processes involved. Yet this is all natural enough, for in all times and in all ages there has been a belief that such antidotes as claimed really do exist, and that they have been effectually employed—color being given to the supposition by the truth that many people recover, though the fortunate termination is due solely to the well known physiological fact that the poisonous serpent employs his venom for the purpose of securing food, and consequently when encountered by man is usually in his most sluggish state, and the poison glands already fairly exhausted of lethal fluid.

EDITORIAL NOTES.

What Is It?—

In THE MEDICAL AGE for August 25th (page 500) we published a cut reproduced from a photograph of an "unknown creature" purported to have been "taken at Matanzas Inlet, Florida."

Since a correspondent has sent us two more photographs of the same creature, which we present herewith.

We must still express our skepticism as to the reality of the monstrosity. Possibly it may be the fault of the individual who "set up" the creature, but in any event it will require something more than the evidence already afforded to convince us that this is a true *lusus naturæ*.

As a matter of comparison we republish the cut which appeared in THE MEDICAL AGE before mentioned.

An Amusing Incident in Literary History.—

In the latter part of 1896 Doctor Paul Carus published in the *Open Court* a story entitled "Karma." This little tale struck the fancy of Count Leo Tolstoi and was by him translated into Russian. Everything that Tolstoi writes is immediately turned into French, and so was "Karma." Then with Tolstoi's name attached to it, it was translated into English and the translation copied in a recent number of *The International*, a monthly magazine published in Chicago but three doors from the office of the *Open Court*.

A circumstance closely resembling the foregoing, though not parallel, occurred in connection with THE MEDICAL AGE a few years since. A gentleman in Ireland wrote a paper upon "Cholera and Cholera Morbus," which appeared in *The Lancet*, subsequently in the *Medical Week*, and then was translated into another French journal. From the latter

it was translated back into English, and this appeared as an abstract in THE MEDICAL AGE. There was nothing in the French journal from which it was retranslated that would show it had ever been published in English.

Toxicity of Perspiration.—

Recently M. Arloing communicated to the Paris Academy a paper dealing with this topic. He claimed the perspiration induced by muscular exertion is highly toxic, and injected into the circulation of animals at once induces depression, which may go on to fatality within thirty-six hours; *per contra* he holds perspiration induced by heat alone as harmless. M. Berthelot, in discussing the subject, recalled that certain old books contain a receipt for poisoning arrows by means of perspiration gathered from the axilla of a horse.

It may be that the perspiration of the equine is particularly charged with toxins, but there is more than a suspicion the axillary region of these animals never receives the attention as regards cleanliness that it should, and the untoward qualities of the secretion may be extraneous rather than physical.

A Royal M.D.—

The Prince of Wales has received the honorary degree of Doctor of Medicine. This, however, in Great Britain, does not entitle him to practise even were he so inclined, as it would in such case be necessary to pass either the College of Physicians or the College of Surgeons.

A Mild Sensation in Paris.—

The Hospital Aubervilliers recently lost through thieves a number of rabbits kept for the culture of diphtheria, cholera, bubonic plague, and other germs. But there is no evidence the loss worked any harm or even started an incipient epidemic.

Good!

Iowa has enacted a very stringent medical law, excluding all forms of quackery, and providing for a license only upon examination of those holding a diploma from a recognized medical school in good standing.

Items and News.

Finnigan to Flannigan.—

Superintindint wuz Flannigan;
Boss av the siction wuz Finnigin;
Whiniver the kyars got offen the thrack
An' muddled up things t' th' devil an' back,
Finnigin writ to Flannigan
Afther the wrick wuz all on agin;
That is, this Finnigin
Repoorted to Flannigan.

Whin Finnigin furst writ to Flannigan,
He writed tin pages—did Finnigin,
An' he tould jist how the smash occurred;
Full manny a tajus, blunderin' wurred
Did Finn'gin write to Flannigan
Afther the cars had gone on agin.
That wuz how Finnigin
Repoorted to Flannigan.

Now Flannigan knowed more than Finnigin—
He'd more idjucation—had Flannigan;
An' it wore 'm clane and complately out
To tell what Finnigin writ about
In his writin' to Muster Flannigan.
So he writed back to Finnigin:
"Don't do sich a sin agin;
Make 'em brief, Finnigin!"

Whin Finnigin got this from Flannigan,
He blushed rosy rid—did Finnigin;
An' he said: "I'll gamble a whole month's pa-ay
That it'll be manny an' manny a da-ay
Befoore Sup'rint ndint, that's Flannigan,
Gits a whack at this very same sin agin.
From Finnigin to Flannigan
Repoorts won't be long agin."

Wan da-ay on the siction av Finnigin,
On the road sup'rintindid by Flannigan,
A rail gave way on a bit av a curve,
An' some kyars went off as they made the swerve.
"There's nobody hurted," sez Finnigin,
"But repoorts must be made to Flannigan."
And he winked at McGorrigan,
As married a Finnigin.

He wuz shanty'n thin, wuz Finnigin,
As manny a railroader's been agin,
An' the schmoky ol' lamp wuz burnin' bright
In Finnigin's shanty all that night—
Bilin' down his repoort was Finnigin!
An' he writed this here: "Muster Flannigan:
"Off agin, on agin,
Gone agin.—Finnigin."

—Peoria Journal.

Chinese Doctors in the U. S.—

Chinamen have long had the name of being good imitators, but in diploma-making they seem to be on a fair way of beating Rutland and all other shrewd rogues of his kind. The new board of medical examiners for Indiana has come across a Celestial who apparently, with a brush, ink, and paper, is able to supply himself with a duly authenticated diploma. Don Sang, being the only Chinese doctor in the State of Indiana, made application for registration before the Board in full confi-

dence that he could outwit its members and pass with flying colors. He laid before them a sheet of paper about a foot long and eight inches wide covered with Chinese characters and having at the lower corners red-ink imitations of a seal. An interpreter was called who pronounced it bogus, said any one could make a piece of paper like that, and declared that he knew of no medical college in China except those of the missionaries, whose diplomas are all printed on parchment, and none of them are as old as the one before them pretended to be. The following is a translation of what the diploma of Don Sang contained:

China. City of Canton Medical College. Tong Chuen was first in the examinations of the students in the medical college for the privilege of practising medicine. In the name of the president, in the name of the professor. This college is the best place in China to gain an education in the science of medicine. The science of medicine has to do with the health of people and the cure of diseases and is the noblest of sciences. The holder must not assign or permit any one else to use this diploma. He is acquainted with the pulse and what causes it, and knows how to recognize disease and prescribe for it. The time of the regular examination and its place having been fixed by the Emperor, he has been examined and has passed the first. Done in the twenty-ninth year of the Emperor Tao, in the city of Canton, the graduate's name being Tong Chuen, aged twenty-one years, and a citizen of the village of Gung, in the Province of Canton.

—*American Medico-Surgical Bulletin.*

Hasty Burials.—

A woman living in Brussels informed the registrar of the death of her child. When he came to prove the death, he remarked the face was death-like, body stiff, heart still; the child appeared quite dead. He raised one of its arms, and instead of falling it remained in the position placed. He immediately resorted to restoratives, and was able in a few hours to bring it back to life and consciousness.

Without enlarging on the evidences of death, it may be said that an ophthalmoscopic examination is an excellent means of diagnosis. During the last agony it is easy to identify the differences that are produced in the blood-vessels of the pupil, especially the general anæmia of the arteries, and the pallor of the optic papilla: when life ceases, the veins become separated as if cut with a knife from point to point.—*Medical Investigator.*

The Cocaine Habit.—

The *British Medical Journal*, in a recent issue, sounds an alarm concerning the rapid spread of this habit in England, where it threatens to become the third scourge of humanity, alcohol and morphine being the first and second. All ranks of society are declared to be crowded with its victims—both men and women—many of whom are literary people, who take cocaine to stimulate their imagination.

Fandangoes.—

There is too much running after fads in our profession; too much striving after the odd and eccentric; too much antitoxin and serum-therapy and microbe hunting, and Chinese toy-shop apparatus and instruments, and not enough of that placid horse sense which just cures folks and lets the book doctors and instrument inventors give the long-handled names.—*North American Journal of Homœopathy.*

Myopia.—

The finer, close work of the kindergarten is very productive of myopia. All close application of the eyes in early childhood up to eight or ten years of age is productive of the same results; myopia, moreover, is to a very great extent hereditary, and hence greatly on the increase among civilized nations.—Wood, in *New York Medical Journal.*

Baby Incubators on Hire.—

These, duly warmed and ventilated for sickly infants, can now be hired in Berlin, on a request signed by a medical man, at from $8 to $15 per month.—*Medical Times.*

What Next?—

A sanitary bible, bound in celluloid, which can be washed, has just been introduced into court rooms.—*Exchange.*

[But who will ever wash it?—Ed.]

A Step Higher.—

Nebraska's new medical law empowers the State Board of Health to recognize only diplomas from four-year schools.

Horse Beef.—

Nearly 4000 horses were slaughtered in Antwerp during 1896 for the local meat markets.

A French Proverb.—

"Great Britain is the paradise of women, the purgatory of servants, and the hell of horses."

Relapses in Typhoid.—

Of 500 cases treated by Osler during the past seven years, eight per cent. suffered relapse.

Book Reviews.

ATLAS AND ESSENTIALS OF BACTERIOLOGY. By Doctors K. B. Lehmann and Rudolf Neumann. Cloth; 12mo; pp. 125; 558 illustrations Price, $3.00. William Wood & Co., New York.

This is one of the series known as Wood's Medical Hand Atlases, and the series has contained none more exquisite than this, the latest addition thereto. The pictorial portrayal of the various forms of bacteria has, from the very inception of the science, been an indispensable adjunct to its study, and this little volume, with its nearly six hundred figures, so far as such means avail, make possible the ready recognition of any micro-organism. It is simply indispensable to any physician who owns a microscope, and simplifies very much his studies with this instrument.

PRINCIPLES OF MEDICINE. By Charles S. Mack, M.D. Cloth; 16mo; pp. 133. Price, $1.00. The W. T. Keener Co., Chicago.

This little brochure has been put forth by its author, to employ his own words, "to show just what is the cure sought in given practise in homœopathy—to show that cure cannot be intelligently attempted excepting under guidance of *similia similibus curantur* as a law, and to show that one may consistently accept homœopathy and at the same time accept whatever else is good in medicine."

While the little volume is quite interesting, it appears to us the author dodges a number of questions of vital importance.

A TEXT-BOOK OF DISEASES OF WOMEN. By Charles H. Penrose, M.D., Ph D. Cloth; 12mo; pp. 529. Price, $3.50. W. B. Saunders, Philadelphia.

This volume has been prepared more particularly for the medical student, and presents the best teaching of modern gynæcology. All facts of anatomy, physiology, and pathology which are common to general text-books upon these subjects have been omitted; indeed, only such facts as are important to the elucidation of the subject or to emphasize pathology have been retained.

The illustrations are of a very superior character.

GOLDEN ALASKA. By Ernest Ingersoll. Boards; 24mo. Price, 50 cents. Rand, McNally & Co., Chicago and New York.

This is a very complete guide to the mining regions of Alaska and the Klondyke, and deals with the physical, climatological and other features that must be encountered by those desiring to visit the fields. Full account of the route, expenses, etc., are given.

A twenty-five cent edition is issued in paper.

THE BADMINTON MAGAZINE. Price, 30 cents; $3.50 per year. Longmans, Green & Co., New York

The August issue contains a paper on "Grouse" by Hon. A. E. Gathorne-Hardy. Other contributions are "The Poacher," by Horace Hutchinson; "A Foursome at Amoy," by Surgeon T. J. Jeans, R N; "The Latter-Day Wager," by Harold MacFarlane; "A Sporting Trip to Cape L'Agulhas," by Hendrik B Knoblauch; "Queer Recoveries," by Lady Middleton; "Hafflinger Horses," by Clare Sorel Strong; "Some Bowling and Field Yarns," by W. J. Ford; "A Chapter of Accidents," by Anthony Gibbs; "Polo on the Pampas," by Ann Scott-Montcrieff; "Horse Racing in England at the Queen's Accession," by E. Anthony; "Notes by Rapier." The illustrations are by Henry Sannard, G. H. Jalland, T. J. Jeans, R.N., E. Caldwell, Herbert Horwitz, Ernest Prater, A. de Bree, Harrington Bird.

The September issue contains: "A Cricket Tragedy," by Rex Ray; "Some Recent St. Legers" is by Alfred E. T. Watson; "Casting a Line," by E. F. T. Bennett; "A Cycle Tour in Spain," by Charles Edwardes; "A Day with a Norfolk Gunner," by C. J Cornish; "Our Day on the Broads," by Reverend George Preston; "The Lazo," by R. B. Cunninghame Graham; "Partridges by the Seaside," by Hon. John Scott Montagu, M P.; "Marphor Stalking in the Himalayas," by Harry Lindsay; "Amateurs Cruising on the West Coast of Scotland," by W. MacNeile Dixon. There are the usual "Notes" by Rapier. The illustrations are by Ernst Prater, Harington Bird, E. F. T. Bennett, J. Ambrose Walton, A. de Bree, N. J. Gibb, Henry Stannard, N. R. Arthur, Loraine E. Caldwell, and Launcelot Speed.

THE LIVING AGE. Price, 20 cents; $6.00 per year. The Living Age Co., Boston.

To present the best thought in the whole range of living literature is the mission of this publication—and how well it has fulfilled this mission for over half a century its record fully testifies.

The titles of a few of the papers contained in its latest issues illustrate the freshness, catholicity, spirit and value of *The Living Age:* "England and the European Concert," by James W. Gambier, R N.; "Woman's Place in the World of Letters," by Alice Stopford Green; "The King of Siam," by B. A. Smith; "Newman and Renan," by William Barry, D D.; "The Deadlock in Austria-Hungary," by Austriacus; "Paris in June, 1871," by A. J. Butler; "Royalties," by F. Max Müller; "The Growth of Caste in the U. S.," by Joseph E. Chamberlin; "Recent Science," by Prince P. Kropotkin; "Pascal," by Leslie Stephen; "The Sphinx of Modern London," by F. W. Newland; "The Lesser Elizabethan Lyrists," by Stephen Gwynn; "The Sayings of Jesus;" "Jean Ingelow;" "Mrs. Oliphant;" "A Great Country's Little Wars." There are also choice selections of fiction and poetry, including Kipling's magnificent "Recessional."

THE BRITISH GYNÆCOLOGICAL JOURNAL. Edited by F. F. Schacht, M.D. John Bale & Sons & Danielsson, Limited, London.

The August issue of this journal, besides reporting the meetings of the British Gynæcological Society in May and June last, presents several original communications, notably: "Twelve Months'

Gynæcological Work," by J. A. Mansell-Moullin; "Clinical Notes and Observations on One Hundred Consecutive Cases of Abdominal Section," by A. J Ferneaux Jordan; "The Uses of Nitrous Oxide Gas and Oxygen in Minor Gynæcological Operations," by A. H. Bellamy Gardner; "The Value of Exploratory Laparotomy in Real and Supposed Abdominal Malignant Disease," by Doctor H. Snow; "Puerperal Peritonitis Treated with Anti-Streptococcic Serum," by R. T. Smith. There are the usual Reviews, Reports of Societies, Obituaries, Summary of Gynæcology and Obstetrics, etc.

ARCHITECTURE AND BUILDING. Price, 10 cents; $4.00 per year. W. T. Comstock, New York.

Contents for August 21st: "Labor Leaders and the Merit System;" "The Trans-Mississippi and International Exposition;" "Editorial Notes and Comments;" "The New Course in Architectural Engineering at Columbia University;" "Technical Education in Architecture and the Building Trades" (II); "In Streets and Papers;" "Societies;" "Personal."

Contents for August 28th: "A Problem of the Future;" "Notes on Some Remnants of Mediæval Burgundy;" "Electric Fires from Various Causes;" "A Method of Detecting Alterations in Manuscripts;" "Correction;" "Obituary;" "Correspondence;" "Naturally Formed Marbles;" "Current Notes;" "Industrial Progress;" "Editorial Notes and Comments;" "Personal;" "Societies."

THE ATLANTIC MONTHLY. Price, 35 cents; $4.00 per year. Houghton, Mifflin & Co., Boston.

The principal articles in the October number are: "Two Principles in American Fiction," by James Lane Allen; "The French Mastery of Style," by Ferdinand Brunetière; "Caleb West" (I–IV), by F. Hopkinson Smith; "Twenty-five Years' Progress in Equatorial Africa," by Henry M. Stanley; "The Latest Discoveries Touching the History of the Universe," by T. J. J. See; "Peculiarities of American Municipal Problems," by E. L. Godkin; "A Russian Experiment in Self-Government," by George Kennan; "Gabriel d'Annunzio and Decadent Literature," by Henry D. Sedgwick, Jr.; "Martha's Lady," by Sarah Orne Jewett; "Chicago Since the World's Fair," by Henry B. Fuller; "The Training of Teachers: the Old Point of View," by Frederic Burk.

OUTING. Price, 25 cents; $3.00 per year. The Outing Company, New York.

The September issue opens with an intensely interesting description of the trip "From the Coast to the Golden Klondike." Other notable features include "A Vancouver Salmon," by Ed. W. Sandys; "Duck-shooting on the Hudson River," by John Day Knapp; "Blue-fishing off Fire Island," by Frederick De Garis; "Deer-hunting on Sanhedrin," by Ninetta Eames; "The Larchmont Regatta Week," by A. J. Kenealy; "A Romance Among the Rice Birds," by E. E. Peake; "Specialization in Athletics," by Malcolm W. Ford; "A Woman's Outing on the Nepigon," by Bergthora; "A Wisconsin Pickerel," by R. W. Jackson; "Amagansett," by Lucy Cleveland; "Thro' Sunny France Awheel," by Paul E. Jenks; and the usual editorials, poems, and records.

MCCLURE'S MAGAZINE. Price, 10 cents; $1.00 per year. The S. S. McClure Co., New York.

The October number contains an article by Mr. Bernard P. Grenfall, one of the two discoverers of the new "Sayings" of Christ. There is a description of what must be one of the most curious and thrilling spectacles in all the world—an elephant round-up in Siam. An article entitled "The Making of a Regiment" describes what has hitherto, we believe, never been set forth—the curious moral progress by which, in the late war, large bodies of men, with no taste for military life and no training in it, became, in a brief time, disciplined to perfection and capable of any service, however hard or hazardous. Octave Thanet, Stephen Crane, and other well known story writers contribute to the October number. There are published for the first time life masks of John Adams, Jefferson, Madison, Lafayette, and Charles Carroll, taken about 1825 by the sculptor Browere. The story of these masks is told by Charles Henry Hart.

DONAHOE'S MAGAZINE. Price, 25 cents; $2.00 per year. Donahoe Magazine Company, Boston.

Chaplain Chidwick in the September number writes of "A Parish Afloat;" S. Leverett Johnson tells very entertainingly the story of a trip through "A Land of Wind and Water;" Pauline C. Rust of the discovery of "The Caverns of Luray." A story entitled "The Stars" is by Henry G. Hamilton; John J. Mallon makes a scholarly analysis of the work of Doctor Parsons, the historian; Father McGuirl gives a succinct account of the organization and aims of the Young Men's National Union, of which he is president; "A Jesuit in Disguise" ends; Cora Linn Daniels describes "An Emergency;" M. Gertrude Reynolds furnishes the opening chapters of a story, "The Scarlet Glove." This issue closes the very interesting study of the "Life and Legends of St. Patrick," by P. J. Lynch.

THE CENTURY. Price, 35 cents; $4.00 per year. The Century Co., New York.

In the September issue "What Stopped the Ship" sets forth a midocean mystery; John Muir has a tale of peril in Alaska; "Prisoners of State at Boro Boedor" describes the adventures of two ladies in an out-of-the-way part of Java and is by Miss E. R. Scidmore. A subject of current interest is treated by the late E. J. Geave in a paper entitled "Cruelty in the Congo Free State." Mrs. A. M. Mosher writes on "Browning and His Summers in Brittany;" "Glimpses of Gladstone" is by Harry Furniss; an account of Bessie Potter's statuettes, by Arthur Hoeker; "Royalists and Republicans of France," by Baron de Conbertin; "Campaigning with Grant," by General Porter, is next to the last instalment.

LIPPINCOTT'S MAGAZINE. Price, 25 cents; $3.00 per year. The J. B. Lippincott Co., Philadelphia.

The complete novel in the September issue is "Weeping Ferry," by Margaret L. Woods. Charles M. Skinner writes of "A Fiddle in the Desert;" H. H. Bennett of "At Bridge Twenty-two;" "Emmy's Going Home" is narrated by Frank Crane; "The Trend of Horticulture," by George Ethelbert Walsh; William Trowbridge Larned descants at some length upon "The Rocky Mountain Prophets"—the Mormons; "The Chicago Drainage Channel" is described

by John L. Wright; "Europe and the Exposition of 1900," by Theodore Stanton; "European Housekeeping," by Frances Courtenay Baylor; "Musical Mexico," by Arthur H. Noll; Erin Graham writes on "Books that Girls Have Loved." The only poem of the number is by Mary McNeil Scott.

ARCHITECTURE AND BUILDING. Price, 10 cents; $4.00 per year. William T. Comstock, New York.

The September 11th number contains: "New York's Future Policy;" "Editorial Notes and Comments;" "Myths, Superstitions, Romance and Humor of Architecture" (XVIII); "Color in Cypress;" "Personal;" "Correction;" "Excavations at Branchidae;" "Societies;" "Correspondence;" "Industrial Progress"

The September 18th issue contains: "The Harrisburg Competition;" "Editorial Notes and Comments;" "The Harrisburg Competition: A Record;" "Marine Salt in Plaster;" "Personal;" "Ancient Building Methods;" "Societies;" "Obituary;" "The American Delegation to the International Congress, Brussels;" "Industrial Progress."

APPLETON'S POPULAR SCIENCE MONTHLY. Price, 50 cents; $5.00 per year. D. Appleton & Co., New York.

The October issue contains a well illustrated article on "Franklin's Kite Experiments With Modern Apparatus," by Alexander McAdie; also a criticism of the present methods of teaching drawing, by H. G. Fritz. There is a contribution to the new psychology, under the title "The Psychology of Belief," by W. B. Parker. David A. Wells' paper on "Existing Methods of Taxation" is of special interest. Professor Frederick Starr contributes an article describing and illustrating science teaching in the University of Chicago. Professor C. Hanford Henderson presents a review of a new book entitled "Some Unrecognized Laws of Nature."

THE CANADIAN MAGAZINE. Price, 25 cents; $2.50 per annum. Ontario Publishing Co., Limited, Toronto.

The September issue opens with a most complete and unanswerable paper by Richard Maurice Bucke, M.D., on "Shakespeare or Bacon?" "A Glimpse of Norway" is by Winnifred Wilton; "The Premiers of Manitoba," by Ronald B. C. Montgomery; "University Athletics," by George W. Orton; "Aelfthryth," by Thomas Swift; "Hagar of the Pawnshop," by Fergus Hume; "My Contemporaries in Fiction" (XI), by David Christie Murray; "The Crushed Violet," by Anton Rethal; "Dans LeMonde Litteraire Francais," by Hector Garneau. There are the usual departments.

THE DECORATOR AND FURNISHER. Price, 20 cents; $2.00 per year. The Art Trades Publishing and Printing Co., New York.

In the September number A. E. Hornel writes of "Japanese Studies." Other articles are: "Art Notes;" "Short Descriptive Articles, of Interest to Women;" "Concerning the New Æsthetic Style;" "Our Magazine, and the Third Amateur Competition;" "A Dutch Corner;" "Historical Series No. 5, with Illustrations of the Louis XIV Epoch and the Style Regency;" "A Dining-room in the German Style;" "The Turkish Compassionate Fund;" "Rococo Ornament for Decorative Purposes;" "Decorative Notes," etc.

THE AMERICAN NATURALIST. Price, 35 cents; $4.00 per year. The Edwards & Docker Co., Philadelphia.

Table of contents for September: "Biology and Medicine," by William H. Welch; "Hair and Feathers," by J. S. Kingsley; "Birds of the Galapagos Archipelago;" a criticism of Mr. Robert Ridgway's paper, by G. Baur, Ph.D.; "The Advance in Biology in 1895," by C. B. Davenport; "The Swamps of Oswego County, New York, and Their Flora" (concluded), by W. W. Rowlee; "Editor's Table;" "Recent Literature;" General Notes on Petrography, Botany, Zoology, Entomology, Embryology, Psychology, Anthropology; "Scientific News."

THE COSMOPOLITAN. Price, 10 cents; $1.00 per year. The Cosmopolitan Publishing Co., Irvington, New York.

Julian Hawthorne follows his graphic account of the famine in India in a recent number of this magazine with some notes of trade, and observation on "The Real India," in the September issue. Robert Oglesby contributes a narrative of a six months' trip through the Yukon gold regions; Ouida discourses on the "Art of Dress." A new serial by Julien Gordon (Mrs. Cruger) is begun in this number and promises to be interesting.

THE MIDLAND MONTHLY. Price, 15 cents; $1.50 per year. Johnson Brigham, Des Moines, Iowa.

The September issue contains: "Picturesque Hawaii," by C. H. Austin; "'Princess' Angeline," by Jennie S. Moore; "Grant's Life in the West," by John W. Emerson; "Chief Black Hawk," by Albina W. Letts; "Art in its Relation to Life," by Harriet C. Towner; "Odyssey of Sandy McPherson," by H. E. Warner; "The Latest Love Affair in San Marco," by Letson Balliett; "The Vagrant of Caser Mine" (II), by Helen F. Clutz. There are the usual departments.

AMERICAN KITCHEN MAGAZINE. Price, 10 cents; $1.00 per year. Home Science Publishing Co., Boston.

Contents for September: "Domestic Science in the Agricultural Colleges;" "The Place of Science in Woman's Education," by Ellen H. Richards; "Child Diaries," by Mrs. G. H. Preston; "Experiments with Fish and Meat," by Angeline M. Weaver; "From Kitchen to Parlor," by Alice E. Moore; "Dietary Studies in New Mexico." There are the usual poetry and departments.

THE AMERICAN MONTHLY REVIEW OF REVIEWS. Price, 25 cents; $2.50 per year. The Review of Reviews Co., New York.

In the September issue Henry W. Lanier writes of "The Nicaragua Canal Commission;" James Barnes of "President Andrews and Brown University;" Ralph M. Easley of "Caucus Reform;" J. M. Curry of "Canovas." There are the usual cartoons, reviews, departments, etc.

Therapeutic Brevities.

Water for Hypodermatic Purposes.—Take of boiling hydrant water one gallon, to which add one-eighth grain of potassium permanganate which has been dissolved in one ounce of water; mix well, allow to stand one hour, and if the water loses the light pink color, add another portion of potassium permanganate, and in this manner continue until it retains a delicate tint from the salt. Then add three grains of alum, shake until dissolved, and allow to stand until the precipitate subsides, and until the tint from the permanganate has disappeared. The process is hastened by frequent shaking. Filter three times through a double thickness of white filter paper, which has previously been scalded, to render it sterile. The process should be conducted in well-closed glass containers, and during filtration the funnels should be covered with well-fitting rubber covers. The finished product should be kept in absolutely clean, well-stoppered bottles, and before using the lip of the bottle should be carefully freed from dust, and every care should be exercised to keep it clean and sterile. Water thus prepared has kept sterile for as long as six months; it, moreover, causes no abscesses where proper attention has been given to the syringe used in making a hypodermatic injection.—*Western Druggist.*

The Iodides in Heart Disease.—Some time ago Clark, of London, wrote an exceedingly interesting and valuable monograph on the use of iodide of arsenic in certain forms of heart disease. Recently Vierordt, of Heidelberg, has reported the effects of iodide of sodium and iodide of potassium. The cases treated were in part subject to arteriosclerosis, excluding those of pronounced cardiac weakness and albuminuria. From fifteen to thirty grains of sodium iodide was given daily in divided doses in milk or Seidlitz water, and after a time followed by potassium iodide in the form of an effervescent salt. The effect on the arteriosclerosis was especially marked in cases accompanied by cardiac distress, especially angina pectoris. It seemed to be but of little consequence whether the arteriosclerosis was of syphilitic origin or not. Vierordt does not pretend to define the *modus operandi* of the iodides, but thinks the morbid process in the blood-vessels is brought to a standstill so that the high-toned blood pressure is gradually lowered and therefore the normal circulating function reestablished for a time. While this treatment seems to check vascular changes, there is no evidence that it restores the tissues to their normal condition. —*New York Medical Times.*

Chloroform Aphorisms.—Chloroform may be given as safely as ether if the following rules are adhered to:

The stomach should contain no food, and a very small quantity of liquid:

Place the head a little lower than the trunk:

Permit no tight clothing about the patient:

The anæsthetic should be Squibb's 70-per-cent. alcohol, 30 per cent. by volume:

A hypodermatic of one-fourth grain morphine with $\frac{1}{150}$ grain atropine should be given a half hour before the anæsthetic:

The first inhalation of the vapor should be well diluted with air, and very gradually given:

A teaspoonful of aromatic spirits of ammonia should be given in half an ounce of whiskey or brandy by the stomach:

A starched towel folded in the shape of a cone, the apex open, should be employed, as it allows the air to enter freely:

The pulse and reflex of the eye should be closely watched, and the towel removed from time to time when indicated.—SPOTTSWOOD, in *Columbus Medical Journal.*

Treatment of Consumption by Cinnamon.—It appears probable that the oil of cinnamon cures consumption in two ways: In the early stages of catarrhal phthisis, by so directly affecting the bacilli as to stop their growth: In cases that are rather far advanced, by only allowing organisms incapable of growth to pass along the bronchi, and thus prevent the infection of fresh lobules. In this way the disease may be limited to small areas, where it can be dealt with by the vital processes of the body, and cut off from the system by the formation of fibrous tissue, and so cease to be an immediate source of danger. An interesting feature in the cases observed under this treatment was the order in which the symptoms subsided. The expectoration and the cough were the first to improve, then the temperature tended to the normal, and finally the weight began to increase. These favorable changes were accompanied by gradual diminution in the number of the bacilli in the sputum.—THOMPSON, in *British Medical Journal.*

Boracic Acid in Ear Disease.—The indiscriminate insufflation of powdered boracic acid for acute or chronic suppuration of the

middle ear cannot be too strongly condemned. A thin layer properly insufflated with a scientifically constructed powder-blower can do no harm, but pouring and shoveling it into the auditory canal in any way so as to completely fill and pack it can only be followed by deleterious results. It is such an easy way of stopping (apparently at least) a discharge from the ear quickly, that the evil consequences are entirely lost sight of. The damming back of the matter behind an almost impermeable crust of boracic acid powder that is formed, lures both the patient and the physician into the sometimes fatal error of thinking that the inflammatory condition and suppuration have ceased, when in truth they have gone on more than ever, at times even involving other, more deeply situated parts of the ear. Taking into consideration these facts, general practitioners should certainly be more careful and discriminating in the use of the remedy.—*Clinical Chronicle* (London).

Catheterism of Ureter in Male.—The following is the mode of procedure: The bladder is washed out, cocainized, and from five to seven ounces of clear fluid introduced. The ureter cystoscope containing the ureter catheter is then passed. After the interior of the bladder has been inspected and the ureteral openings have come into view, one of them is approached and the catheter pushed forward,—the catheter is not allowed to pass more than two inches into the ureter, and the wire mandrel is withdrawn. As a rule the urine will begin to flow drop by drop. If the directions are properly followed there ought, in skilled hands, to be no difficulty in performing the operation. In only one case have I ever failed, and here there was evidently congenital contraction of the mouth of the ureter. The value of the operation, especially where nephrectomy is proposed, is obvious.—MEYER, in *Journal of Cutaneous and Genito-Urinary Diseases.*

Chelidonium in Cancer.—In fourteen cases of uterine carcinoma, the watery extract of *Chelidonium majus* was employed subcutaneously to several points in the abdomen once a week, as recommended by Denissenko. In no case was there the least improvement, but in several the infiltration seemed to extend with unusual rapidity, and ulceration advanced with greater speed than before. Denissenko claims that the drug lessens the rapid disintegration of tissue, and even brings about encapsulation. No such improvement was seen in any of our cases, though in three instances hæmorrhage was checked. In all the general health was unfavorably influenced, deteriorating far more rapidly than in untreated cases of cancer too far advanced for surgery. The injections caused severe pain. We believe chelidonium should be rejected as a medicament for cancer.—WINTER and SCHMITT, in *Centralblatt für Gynäkologie.*

Cinnamon Water as an Antiseptic.—Oil of cinnamon in aqueous solution acts like magic as a local disinfectant. In a recent wound of any kind, after stitching or whatever may be needed, keep a compress wet with cinnamon water constantly applied until healing is complete, which usually takes place without suppuration. It takes the place of corrosive sublimate, and everything else. It is pleasant to use, cleanly, non-toxic, safe, and cheap. As a douche after parturition it is ideal, not often requiring to be used more than two or three times. I add three or four drops of the oil of cinnamon to two quarts of warm water, and direct it to be used as often as there is any scent to the lochia. In nasal catarrh it serves well, and in fact wherever a germicide and disinfectant is wanted.—BAGGOTT, in *Medical World.*

Red-Gum Gargle.—

℞ Potassium chlorate, 2 drachms.
Boiling water, 4 ounces.
Powdered alum, 2 drachms.
Stronger rose-water, 21 drachms.
Glycerin, 4 drachms.
Syrup, 4 drachms.
Fluid extract of *Eucalyptus rostrata* (red gum), 3 drachms.

Dissolve the potassium chlorate in the boiling water; cool, and reserve. Dissolve the alum in the stronger rose-water, add the glycerin, syrup, and fluid extract of red gum in the order named; then mix with the reserve portion.

The product is a transparent ruby-red liquid, of a very agreeable odor and taste. To use, take a tablespoonful, add an equal volume of water, and gargle every three or four hours, or more often if required.—ENGLAND, in *Philadelphia Polyclinic.*

Injection for Gonorrhœa.—Rub together ten grammes of analgesin and the same amount of muriate tincture iron, then add water to make 150–250 grammes. I have seen no ill effects whatever following the use of this combination. In sixty cases I have had occasion to use it with the best success in every respect. It seems to be non-irritating, at the same time highly antiseptic and astringent.

I use a six-ounce syringe with a Mercier catheter, which I insert as far as the prostatic urethra; but I do not inject until after the urethra has been cleansed with from six to twelve ounces of boiled water. I next inject three or four syringefuls, so that about six ounces enters the bladder, in order to prevent cystitis. It all passes out alongside of the catheter.—MOEHLAN, in *New York Medical Journal.*

Hoarseness.—The following is an excellent syrup in hoarseness due to sudden colds:

Liquor ammoniæ, 40 minims.
Syrup of hedge-mustard, 6 ounces.
Infusion of linden flowers, 10 ounces.

Four ounces to be taken at once and repeated as desired.

The purpose of the linden flowers being merely to give a pleasant taste, it may be supplanted by any convenient medium of a similar nature, or by water. The remedy should be used hot. The syrup is known in France as "Foreau's Syrup." Foreau was physician to the Emperor Napoleon, and was frequently compelled to prescribe it, as Bonaparte was very subject to sudden attacks of hoarseness. It rarely fails to relieve at once. —*National Druggist.*

Intestinal Calculi of Salol.—A woman with gastro-intestinal disturbances took sixty to seventy-five grains of salol daily in seven-grain doses, for ten days, when she developed symptoms of complete intestinal occlusion which resisted the most energetic treatment, including electricity, for thirty-six hours. In the evacuation then secured a dozen calculi were found, all formed of salol which had been taken in the form of a powder, and had evidently been dissolved in the intestines and recrystallized. The largest weighed thirty grains, the total mass sixty grains. The case shows the possibility of intestinal lithiasis of therapeutic origin, and also adds another to the already numerous inconveniences of intestinal antisepsis. — *Bulletin de l'Académie de Médecine.*

Typhoid Fever.—The Woodbridge method of treatment has been subjected to severe criticism by the profession. Notwithstanding the criticisms, the advocates of the principles involved in his treatment are increasing daily, and whether one chooses to believe that there is anything in it or not, like those who refused to adopt aseptic and antiseptic surgery, he will in a few years be forced to adopt the treatment. Nevertheless, although the claims of Woodbridge are extravagant—*i.e.*, "That every case of typhoid fever can be aborted"—his treatment is based on science. As Doctor Thistle, of Toronto, says: "The eliminative and antiseptic treatment follows closely upon our knowledge of the nature and *modus operandi* of the infective agent." — FLETCHER, in *Charlotte Medical Journal.*

Fatal Poisoning by Potassium Chlorate.—In the *Berliner Klinische Wochenschrift* Jacob reports a case of fatal intoxication with potassium chlorate. A seamstress, thirty seven years old, swallowed nearly an ounce at one dose, and died after six days of terrible suffering. Jacob closes his report with a warning not to use the chlorate either as an internal remedy or as a gargle. He is especially averse to its employment in the latter shape, since one is apt to swallow a portion every time it is used. He adds: "Many clinical reports are on record showing that potassium chlorate is dangerous, even in minute doses. It acts as a blood poison, frequently causing violent hæmorrhagic nephritis and death."—*Western Druggist.*

Turpentine in Purpura Hæmorrhagica.—Nineteen years ago I was consulted by a party aged twenty-six, for a purple rash over the arms and legs. The number of spots increased, and in a few days hæmorrhage occurred from the gums, followed in rapid succession by bleeding from the nose, bladder, and bowels. At the rate the patient was losing blood he could not possibly survive long. As a result of examining various books I gave fifteen minims of turpentine every two hours. Improvement soon set in, the bleeding progressively diminished, and complete recovery ensued. I have seen the patient at intervals by casually meeting him, but he has practically had no illness since the purpura. —CHAPMAN.

Excessive Venery.—A large experience leads me to believe that all or nearly all cases of sexual weakness or inability resulting from masturbation or excessive intercourse can be permanently relieved by the use of fluid extract saw palmetto berry, one-half ounce four times daily. To control and build up the nervous system, I prescribe hypophosphites.

Sometimes the patient will suffer from loss of semen while straining at stool, on account of which he is much depressed. This can be corrected by instructing him to keep the bowels loose.—L. C. BROWN.

Pathological Swellings.—There is no treatment that will so quickly disperse a swelling or remove by absorption an enlarged lymphatic gland as electricity, if properly applied. The galvanic current should be used in all cases. The negative pole should be applied to the affected part, and currents of moderate strength applied five minutes daily. In treating enlarged glands, if the negative sponge be thoroughly moistened with tincture of iodine it will greatly hasten absorption. Almost every case can be prevented from coming to suppuration if this treatment is employed. From two to six milliampères of current may be used, or five to eight cells.—*Hot Springs Medical Journal.*

Acute Coryza.—

℞ Menthol, 30 grains.
Chloroform, 5 drachms.

Inhale four or five drops, rubbed on to palms of hands, several times a day.

—*Therapeutische Monatschefte.*

℞ Alum, 1 part.
Sugar, 10 parts.

Use as snuff several times daily, for a "fresh cold."

℞ Camphor,
Sugar, equal parts.

Employ same as preceding.

—WUNCHE.

Gonorrhœa.—By reason of the great power possessed by methyl salicylate of penetrating investing membranes, I conceived the idea that it will reach the gonococci even when they are seated in the deepest layers of the mucous membrane. I cured one case in five days, but do not generalize from this alone. I use a solution composed of one part methyl salicylate, twenty parts bismuth subnitrate, and 100 parts liquid vaselin, and give three injections of the same daily; the patient should employ immediately after urination and hold in the urethra as long as possible.—DUQUAIRE, in *Journal des Praticiens.*

Hamamelis in Renal Hæmorrhage.—My father, an old man of sixty-three, was affected by these renal hæmorrhages, caused by calculi, and they had continued for ten weeks. In vain he had been treated most assiduously by three physicians; the bleeding could not be stilled, and in consequence he had become very weak. Taking a teaspoonful of extract of hamamelis five times a day checked the hæmorrhages, and besides, this wonderful effect was *permanent.* Since two months he has completely recovered, and his urine is free from blood or albumen.—PAUL REICHERT.

Atropine in Eye Diseases.—In no case of questionable diagnosis, in persons over forty, should atropine be used:

In every case, while using, except in threatened perforating ulcers, the tension of the eye should be taken daily:

In all cases where it is necessary to use for several weeks, an occasional instillation of eserine is a good safeguard:

That numerous cases of glaucoma are caused by the injudicious use of atropine there can be no doubt.—*Oklahoma Medical Journal.*

Local Treatment of Gout.—

Potassium iodide, 4 drachms.
Soap liniment, 4 drachms.
Cajuput oil, 30 minims.
Caraway oil, 30 minims.
Rectified spirit, sufficient to make 7 ounces.

Apply on lint and cover with protective.

—*Medical Record.*

Pilocarpine Externally in Nephritis.—Molliére, at the Hotel-Dieu, uses pilocarpine nitrate one-fourth to one-half grain to the ounce of vaselin by friction along the whole dorso-lumbar region. It is applied only once daily, and the part then covered with cotton.—*Lyon Médicale.*

Phosphorus Poisoning.—

Oil of turpentine, 10 grammes.
Mucilage gum Arabic, 250 grammes.
Syrup of orange peel, 80 grammes.

Take in three portions, and shake before using.

—VETTER, in *Therapie der Gengenwart.*

To Remove Silver Nitrate Stains.—

Bichloride of mercury, 5 parts.
Muriate of ammonium, 5 parts.
Distilled water, 40 parts.

Apply with a cloth, then rub.

—*North Carolina Medical Journal.*

Masturbation.—Apply a small fly-blister on the penis. The victim will then let it alone until it gets well. Then apply another, and so on till the habit is broken.—*Medical World.*

Medical Progress.

Action of Diphtheria Poison.—I made a research in an endeavor to ascertain if the products of the Klebs-Loëffler bacillus have any action directly on the heart muscle. Cases of diphtheria often die suddenly, and although this may be due in many instances to paralysis of the vital centers, there may be some where the poisonous products circulating in the blood have a debilitating action on the heart muscle of itself, just in the same way as vegetable alkaloids and glucosides. This "imperfect or altered condition of its circulating blood" on the tissues was long ago observed by Sir Thomas Watson in his oft-quoted lectures on diphtheria, but this phase of the question would not appear to have received the attention it deserves.

At a temperature of 65° F. a healthy female frog, well nourished, was pithed, and a cannula inserted in the ventricle, the septum being divided and the pericardial vein tied. The cannula was tied in, the heart removed from the body, inserted in saline solution, and attached to a perfusion apparatus. Normal saline solution was then passed through the heart, and kept up at a nearly constant pressure for half an hour, during which time the heart-beats were regular and strong in character. At the end of half an hour normal saline solution containing dissolved in it the products of a culture tube from a case of true diphtheria of the throat was turned on, the pressure being kept constant. For the first fifteen minutes the heart beat stronger; for the second fifteen minutes diastole became prolonged; the next fifteen minutes were marked by cycles of one regular systolic beat and one regular diastolic beat and one *long* diastole; the fourth fifteen minutes showed systole less complete and diastole as *prolonged* as in the last cycle. The heart was now evidently getting weaker, and the poison was stopped, and normal saline solution again turned on and passed through for three-quarters of an hour; but the heart stopped in diastole. Despite this, saline solution was still passed through. Half an hour later the organ recovered somewhat and weak systolic efforts were made, but there was never a strong beat, and the heart stopped in full diastole.

I should add that in the various changes from pure normal to *poisoned* normal saline solution the heart was respectively suspended in the same fluid as was passed through its chamber.

Under the same conditions as in the foregoing a second experiment was undertaken on a well nourished, healthy female frog.

To a normal saline solution feeble systolic and diastolic movements were observed. Saline solution was continued for fifteen minutes, after which the heart was allowed to rest, the tube being clamped. After a short period, saline was again turned on: The heart-beats were as before, regular but not strong, this being evidently the normal character of the heart. The poisonous saline was now turned on and the effect watched. For fifteen minutes the beats were much as under normal saline; at the end of fifteen minutes diastole became markedly prolonged —The heart was evidently failing and the *poison* tube was clamped and *pure* saline turned on. At the end of a few minutes diastole became less prolonged, and slowly the organ returned to the weak regular systole and diastole as when saline was first turned on.

The poisonous saline was once more turned on, and revealed a condition similar to that already described. At this time the poison was continued for fifteen minutes. Pure saline once more passed through, and again the heart recovered, but took longer time than before; continued for fifteen minutes.

Poison now passed through, with the same effect as before, diastole being prolonged; the heart was getting weaker, and finally stopped in diastole.

Pure saline was again run through, and kept up for half an hour, but the heart failed to respond.

From these experiments it would appear as if the products of the organism of diphtheria acted directly on the heart muscle.

Diphtheria poison is to be classed with the acids which have as their *final* action the stoppage of the heart muscle in diastole; in the same list we find muscarine, emetine, apomorphine, the alkaloids of green hellebore (*Veratrum viride*), potassium salts, and certain double salts, notably those of copper and zinc. But to some of these last mentioned I find the relationship is even closer than at first appears. The potassium salts and double salts just named first excite and then finally paralyze the heart muscle, and it seems as if this was the action of diphtheria poison. In the first experiment the heart beat stronger for the first fifteen minutes of the passage of the poison through its chamber; in the second experiment, if for the first fifteen minutes the beats were not stronger, they were at least no weaker than with normal saline solution.

Pharmacology is useful in that it confirms, supplements, or interprets clinical evidence; it further points to the rational treatment. By combining the clinical and pharmacological evidence one is able to frame his therapeutics. In the present instance is seen an indication to avoid all remedies which have for their final effect depression of the heart. Hence alcohol, which is often given in large doses in diphtheria, should be especially watched in its action. The great aim and object should be to obtain the benefits of stimulation, and none or as little as possible of its evils; this happily can be done by giving, either alone or with the alcohol, various foods, which not only stimulate the tissues, but also supply them with the necessary materials for their rapid growth and repair. It was long ago observed by clinicians that diphtheria was especially fatal in its effects on those of

a "relaxed habit of body." Here, again, the clinician and the pharmacologist join issue; and I believe their evidence further supports the general line of treatment which I have just advocated, namely, stimulation without ultimate depression. This is especially important in the treatment of the young child. —GORDON SHARP, in *Journal of Anatomy and Physiology.*

ANÆSTHESIA INDUCED BY COMPRESSION OF VAGUS.—I saw, some years since, an article concerning the influence in controlling "convulsions" of pressure on the pneumogastric. I looked carefully into the matter, reading all the literature thereon I could find, and have since sought opportunities to test the measure, in convulsive action, hysteria and kindred affections. I find that although it is little employed, so far as I can ascertain, it was known and its value recognized by a few men hundreds of years ago. In my first experiments, when I was studying the subject of compression with reference to hysterical seizures and epilepsy, two cases occurred where compression of the vagus was followed by all the symptoms described by Aristotle. In each case the patient after moderate pressure fell down on the floor before me as if struck by lightning, like a lifeless corpse, with all the voluntary muscles completely relaxed. Scarcely had I time to become alarmed when sensation and voluntary power returned, although for some time afterwards there remained considerable weakness and debility, though not sufficient to prevent the patient from walking away unassisted.

I must, however, freely own that in most of my observations my object has not been to produce these symptoms, and that I have avoided them as being in general foreign to the object which I had in view. Practically speaking, it is desirable to class the symptoms under two heads, viz: the asthenic and the anæsthetic. The former, which at their culmination constitute loss of all voluntary power, present various intermediate degrees of intensity of muscular debility. A certain amount of debility is almost invariably the result of vagal pressure, resulting entirely or mostly from incident influence on the medulla oblongata and evidenced especially by failure of the cardiac force, and loss or decrease of pulsation in the carotids.

In cases of dislocated bones of difficult reduction vagal pressure presents several advantages possessed by no other means with which I am acquainted, as it is unattended with any kind of danger, and is always at hand in any emergency, however sudden. As an illustration I offer the following:

M. C——, a journeyman baker, a powerful and athletic man, in a fall dislocated beneath the clavicle the head of the humerus. All attempts to reduce the fracture by placing the heel in the axilla were futile. Some hours later compression of the vagus was applied, and at the end of two or three minutes, as near as I could judge, just as I felt the two carotids no longer beating beneath my fingers, a sudden click indicated the return of the bone into its socket, it having been meantime manipulated by my two associates.

This case, however, offers but a faint instance of the advantage attendant upon a means of asthenia always ready at hand in the various emergencies of country practice.

The advantages of vagus compression are its simplicity and freedom from any danger whatever. I have used it in the most varied circumstances, and have never yet witnessed any instance whatever to inspire anxiety or doubt.

To the ordinary observer the effects of vagal pressure appear to be attended with considerable danger, which is, however, more apparent than real. In the case of an individual falling to the ground as if struck by lightning with all the symptoms of insensibility so graphically described by Aristotle, the heart is always found to be pulsating, and the respiration in play; moreover, the physiologist knows of no means of permanently affecting the muscular irritability of the heart by any agents, either mechanical or electrical, applied to the trunk of the vagus. Indeed the two vagi may be divided, as is well known, without arresting the action of the respiratory or the circulatory organs.

I lately tried vagus compression in a case of molar tooth extraction. While the patient was seated I was prepared at the back of the chair to apply pressure on both vagi. As soon as the forceps was gently applied round the tooth I began the pressure, and gave a sign for the operator to commence. The result was satisfactory. According to the statement of the patient she had suffered no pain, and was most enthusiastic in her thanks.

In the first place, vagal compression generally produces a state of asthenia very suitable for the reduction of dislocations, etc., and its application in such cases presents several advantages over chloroform, and is attended by none of its dangers. It may be considered as indicated in all cases of difficult reduction previous to the employment of any of the ordinary anæsthetics.

Secondly, in the case of tooth extraction its employment produced, according to the patient, insensibility to pain, and it may prob-

ably be employed with advantage in many cases of the sort, and also in minor operations, such as for phimosis, etc.—MUELLER (Geneva, Switzerland).

ORIGIN OF URIC ACID.—Ever since physicians, aided by physiological chemists, learned to recognize the existence of uric acid as a factor associated with, and presumably causing, certain diseases, such as gout, the great question of its source of production has been before us. Quite recently it has become more or less the fashion to regard uric acid as a product manufactured exclusively outside the body and as introduced ready made in certain articles of diet, notably meat. It is odd, to say the least of it, that this view should have obtained such general acceptation seeing that not even those who are responsible for its inception are able to state that they have ever discovered uric acid in the blood or tissues of healthy animals, and the evidence all goes to prove that uric acid is never a normal constituent of the blood or tissues of the healthy animal. These observers base their views on the fact that bodies of the xanthin class are discoverable in the tissues, and these they profess, on somewhat inadequate grounds, to regard as the equivalents of uric acid. This question crops up once more anent the treatment of gout by a diet exclusively composed of red meat, associated with the daily ingestion of large quantities of hot water. It may be conceded that great benefit attends this treatment, at any rate in certain cases of gouty arthritis, but this does not help us to solve the problem of its action, though it must be singularly disconcerting to those who regard the disease as one directly due to the excessive ingestion of the acid in meat. There is reason to believe that this Protean disorder, as gout is so justly styled, owes its causation to more complex factors than its students are apt to believe. It is impossible to gainsay the evidence in favor of the tendency of a too starchy diet to favor the formation of uric acid, an influence which has been ascribed to the affinity of amylaceous food for oxygen, thereby interfering with the due oxidation of the nitrogenous ingesta. It may well be that it is the interaction of the various articles of diet that promotes the formation of the peccant material, though how these chemical changes come to pass is a question which still awaits elucidation at the hands of the physiologist. Judging by the results obtained by practitioners of both schools, there must be some truth underlying both hypotheses, and it remains for us to eliminate the perplexities and to arrive at a proper understanding of the chemico-physiological processes which govern the production and absorption of the acid. The problem is one of the greatest interest, but it would be rash to predict that we are within measurable distance of its elucidation.—*Medical Press and Circular.*

SYNAPTIC FIBERS.—This is a new term for which Ranvier is responsible, descriptive of fibers peculiar to cicatricial tissue. It has always been a matter of observation that in the progress of cicatricial union the edges of a wound, no matter how widely apart they may be separated, gradually approach each other as the process of union goes on. While the fact has been constantly referred to, the reason therefor was never explained. The histological formation, the evolution of cicatricial tissue, has now been made the subject of critical study by Professor Ranvier in a great number of cases and a variety of wounds.

These studies were made day by day and hour by hour. He asserts that distinct from the fibrillæ of the plasma and the processes of great length thrown out by the endothelial cells, there are distinct filaments uniting the cells and the fibrine filaments. These have power of contraction and thickening upon themselves like India-rubber bands. They are sometimes simple and run directly from one connective tissue fascia into another, but usually anastomose in their course. He found that by the contraction of these synaptic fibers attached to cells these cells may be stretched and finally detached and transported from their original situation.

"There are," he says, "three organic elements which appear to share in the formation of synaptic fibers, viz.: fibrine, connective or endothelial cells, and lymphatic cells. Thus the fibrine, the physiological rôle of which has hitherto been a mystery, appears to be an important factor in the building up of tissues, more particularly in their regeneration." —*North American Practitioner.*

BACTERIOLOGY NOT SIMPLE.—There are a large number of "bacteriologists," many of whom are specialists who have entirely dissociated bacteriology from pathology, physiology, chemistry and botany. It requires comparatively little skill and study to be a "bacteriologist," and probably more incomplete and unsound work is published on bacteriology than in any other science. It is so easy to create a sensation with bacteria,

especially where disease, or the prevention of disease, is concerned.

Many bacteriologists, unfortunately, are quite satisfied with performing a few laboratory experiments without at the same time studying the disease itself, and they argue only too often from immature observations. They are ever criticizing without being critical. In the study of disease bacteriology cannot and must not be severed from pathology and clinical medicine or surgery. This should be insisted upon, because recently an attempt has been made to have bacteriology recognized as a separate branch of the medical curriculum, with compulsory attendance and the inevitable examination at the end, without which there is no perfection. The principles of bacteriology must of course be taught with biology, pathology, clinical medicine, and surgery, but the art and practice of bacteriology can only be taught by carefully-conducted courses extending over some weeks or months.

The average student acquires a smattering of practical bacteriology which is worse than useless, and this encourages him in the idea that bacteriology is quite simple and mere child's play.—*Nature.*

Significance of the Fontanelle.—Involution of the fontanelle occurs normally from the fifteenth to the eighteenth month. From birth to the ninth month the fontanelle decreases gradually in area, and from this time till complete closure the decrease is more rapid. Retardation of normal involution indicates rachitis or hydrocephalus.

The fontanelle presents pulsatory and respiratory phenomena. The pulsation increases if the tension is slightly increased; diminishes or is lost if the tension be greatly increased.

A murmur over the fontanelle occurs in a certain number of children, most commonly in those who are anæmic or rachitic. It is not pathognomonic.

A slightly prominent and pulsating fontanelle indicates a cerebral hyperæmia, such as occurs in fevers.

A protuberant and tense fontanelle indicates an exudation or inflammation in the cranial cavity.

Retracted fontanelle indicates a condition of collapse, brought about by acute intestinal disease with profuse watery discharges, infantile atrophy from any cause, hæmorrhage, effects of prolonged acute infectious disease, or marantic sinus thrombosis.

In acute infectious diseases with meningeal symptoms, examination of the fontanelle shows no protuberance or tension, whereas in true meningitis these conditions are marked.

In the so-called hydrocephaloid, a terminal condition of cholera infantum marked by the occurrence of striking meningeal symptoms, the fontanelle is retracted.—Abt, in *Medicine.*

Delivery in the Moribund.—In eighteen labors in which women apparently in a dying condition were delivered *per vias naturales*, six children, including one of a pair of twins, lived, and five were born dead; the remainder expired soon after delivery. Turning after various methods was exclusively the means employed in all of the cases. In six the mothers were suffering from eclampsia; of these five recovered, including a twin labor case. Three had cerebral apoplexy; of these two recovered. Two with advanced phthisis survived for a few weeks. Four were flooding from placenta prævia; of these three were saved. One with pulmonary congestion recovered. One bleeding from an internal wound was saved; and one, injured by a fall, died. I have collected nineteen cases of Cæsarian section performed upon dying women; all were graver cases than those in the table, and all died. In thirteen cases the child was alive; one labor was of twins, making fourteen children saved. In only two was the os more or less open.—Decio, in *University Medical Magazine.*

Scarlatina with Eruption Limited to the Face.—Lemoine reports to the Société Médicale des Hôpitaux twenty-three cases in which the eruption was exclusively limited to the face. He referred to cases of a similar nature recognized by Braun as an epidemic in adults in Fürth in 1840. That the cases were truly scarlet fever was established beyond doubt. The patients presented themselves to the hospital suffering from an angina, with fever and redness of the face. The fever fell, but the redness continued, and was shortly followed by a more or less abundant desquamation. A few of the cases afterwards developed albuminuria, anasarca, and symptoms of uræmia. Lemoine considers the cases formed a transition stage between the anginoid scarlatina and scarlatina with general eruption.—*Le Progrès Médical.*

Prolapsed Uterus.—Incontinence of urine is one of the earliest symptoms of a prolapsed uterus.—Bourcier, in *Montreal Medical Journal.*

The Medical Age.

VOL. XV. DETROIT, OCTOBER 11th, 1897. No. 19.

Original Articles.

FATTY ILLS AND THEIR MASQUERADES.

(IX.)

BY EPHRAIM CUTTER, M.D., LL.D.

Case 15.—Four or five years ago a very anxious and nervous wife of middle age came to me for an induration in her right breast. It had been pronounced cancer by a good surgeon, who recommended amputation. It appeared to be a fibroma. Treated on the plans of nutrition here laid down, it departed in a few months. During this time, when she had her nerves quieted by the good progress of what she called her "cancer case," she turned her attention to her husband, who was apparently quite well and attending to a large business. She insisted on his being examined, and her fears were realized by the discovery of free oil in the blood, fat in white corpuscles with albumen, casts; fatty epithelia, with protoplasmic and filamentous catarrh, in the urine. He was readily cured, and remained so at last accounts.

Case 16.—Twelve years ago a multi-millionaire was treated for fatty degeneration of the kidneys, as evidenced by albumen, casts, and fatty epithelia in the urine; was troubled more by hebetude than anything else. He once said to his physician he thought he would hire a man to go behind him with a horsewhip, with orders to flog when he *flagged.*—This must have been on the principle of conferring force by impacts! I told him his tissues were turning into fat and the whip would only waste them more. In a few months all the insignia of fatty metabolism had disappeared, when he declared from motives of economy (!) he would run his case himself alone. He did so, and in a few months literally ran it and himself under the ground! It is not enough to obtain the evidence of health in the body systemic, but this condition must be maintained until the tissues are strong enough not to devolute. Generally speaking, a fatty-ill case should be under medical attendance for six months or longer.—Destroying is easier than building up. This gentleman was over 70 years of age, an extremely hard worker, and unused to consider himself as entitled to any special consideration of rest as to mental and physical labor.

Case 17.—A single lady, like the wife of Case 15, with tumors of the breast, which a "cancer doctor" pronounced malignant and only removable by caustic paste, was put on treatment, and her condition made a special study for a long time,—the usual signs of fatty degeneration were found in the blood and urine, though not marked. As time went on the stigmata disappeared along with the tumors, and she is now quite well.

Case 18.—Sister of Case 17, with like stigmata, but with more signs of alienation, occasionally presented fat in blood, albumen, fatty epithelia, and casts in urine, which evidenced she was skirmishing with a masquerade of fatty degeneration. At the present time she is much better and well-nigh free from the ominous signs. During treatment it was sometimes difficult to keep her strictly to the diet, but the closer she kept the more the insignia were absent.

Case 19.—In 1876 one of the most eminent pedagogues in the world was in the pre-stage of tuberculosis of the lungs. He was cured, and in 1879 went to Japan, seriously charged, in case he was ill, what diet to follow, no matter what physician he had. In 1881 I received a letter from an American physician residing in Tokio, stating that Professor —— had Bright's disease of the kidneys (diagnosis confirmed by the German professor who was at the head of the medical department of the University of Tokio); that they could not get him to eat anything but what I had told him to eat; that however good the diet might be for America it would kill him in Japan; and that they wished I would order him to feed as they desired. I wrote to them that if they changed his diet he would die, and that I wished them to let him alone as to food. They did so. He lived to June, 1893, in the enjoyment of good health, save when he would eat too much carbohydrate food.

For example, in 1893 he taught in a school in Michigan, where he worked very hard, ate all the "goodies" they gave him, though he knew better. His kidney degeneration returned in full force, with all the stigmata, but a few months of going back to prescribed diet restored him again. But death finally overtook him in a way of psychological depression, which it is refreshing to contemplate in these days when so many think that "marriage is a failure!" The beloved wife of his youth died seventy days before him, and he took her death literally "to heart;" besides, he exposed himself to the inclemencies of the weather, took cold, and his disease settled on his heart, which manifested the signs of inflammation and pericardial effusion. He meantime attended to his professional duties, planning for future work as if a young man! As expected, the heart suddenly ceased to beat. At the time of his death his head was covered with iron-gray hair; he could see without glasses; his hand was steady; mind clear; and he had just completed a plan for a new system of pedagogy in music!

Cases 20 and 21.—During the absence of Case 19 in Japan, his wife and daughter were both ill, and examination revealed albumen, casts, and fatty epithelia in the urine. Both were cured.*

Case 22.—About eighteen months ago a girl of 20 came under care for consumption; besides the evidence of this disease she presented fatty epithelia, casts, and albumen in urine, oil in blood, and fat in leucocytes; vaginal and uterine hyperæsthesia; high systemic fever during the after part of the day, though there were detected but very few lung fibers in the sputum. On adopting the usual treatment the urinary stigmata disappeared, but not the oil and fat from the blood morphology. The lungs healed; the lung fiber disappeared from sputum. The fever kept up, and because of this the treatment was abandoned! Still it was good to have checked the fat metabolism under such difficult environments. I am now inclined to think that the degeneration was a prime element in the production of the diurnal fever, which fever I regard as a result of Nature's efforts to rid the body of intruders.

Case 23.—Some thirteen months since a lady of 60 came under my care for rheumatism and anchylosis of the right shoulder-joint; for want of power in the knee-joints; for inability to raise herself in bed and to go up stairs alone. Locomotor ataxia was thought of, and perhaps it was present; indeed, I now think she was in the pre-locomotor ataxic state; but the presence in the blood of oil, fat in leucocytes, amyloid, emerald green, bronze, and other colored pigments; in the urine of amyloid bodies, fatty epithelia, casts, albumen; in the fæces of free oil,—all pointed to a systemic condition of fatty degeneration. One year's treatment sufficed to remove all the stigmata except very slight albumen and occasional fatty epithelia. The anchylosis and pains disappeared, and locomotion was restored. It should be said that she was an admirable patient, obedient, faithful, calm, and single-minded; she saved all her forces to use for recovery; also she was blessed with a beautiful, ruddy, grown-up daughter, who faithfully ministered to her wants and imparted dynamic force to her physically and psychologically, with great advantage.

Case 24.—I was suddenly summoned to a man 65 years old under treatment for chronic Bright's disease of the kidneys, as evidenced by the urinary and blood morphologies, and found him in convulsions which were exactly such as are seen in puerperal cases; he could swallow nothing and was unconscious, so chloroform was applied to the nape of the neck as follows: A small pledget of cotton was moistened therewith, placed on the nape and held there by placing against it the bottom of a glass goblet; the heat of the body evaporated the chloroform, and in a few minutes erythema and almost blistering followed,—the action was quick, sharp, and painful. Signs of consciousness appeared, and soon he was able to converse. The convulsions did not reappear. Afterwards there was some improvement as to the stigmata of his degeneration; but later they devoluted and he died. It should be said that this man suffered a great loss of force from the recent death of his wife and terrible sickness of a favorite daughter; this withdrawal deprived Nature of much-needed dynamis. Nature cannot run a steam-engine unless water is conveyed into vapor.

Case 25.—A man 65 years old, presented in 1890 all the evidences of Bright's disease of the kidneys: The albumen was copious;

*I did not see Mrs. —— at the time of her death, and therefore cannot speak from personal observation. I was informed by Professor —— that her physician got her daughter to boil her urine in a teaspoon and report to him whether it was changed or not! Comment is needless; but I would ask, was this procedure worthy of the professional honor and dignity of this shirking attendant? Was it not shystering? I hope none of my readers will ever be guilty of such remissness and shiftlessness.

upper eyelids swollen; mind appeared to be affected, as he would not listen to the reasonable entreaties of his noble wife, but insisted that there was nothing the matter with him save weakness; had no pain; said he felt well enough. He would not follow directions. He was reaching out for other aid and dispensed with me, saying that he would be best cured by massage without diet and medicine. I was informed that he died two months later.*

Case 26.—A girl of 13 had scarlet fever and her first menses appeared at the same time,—in fact the rash came out and the menses appeared the same day. Albumen, casts, and fatty epithelia were present in the urine. She was put on treatment and got well through with the various phases of the scarlatina, but the urinary morphology persisted for six months before it disappeared. This was twelve or fourteen years ago, and the girl subsequently developed into a beautiful and healthy woman.†

Case 27.—A retired locomotive engineer, 60 years old, in January, 1896, was confined to his bed with an enlarged and valvularly diseased heart, dropsy of limbs, albuminuria, and given up as incurable. In this state he was seen by a relative who had been in a like condition and successfully treated by my son, Doctor John A. Cutter. Layman-like, he prescribed hot water, beef, and dandelion root extract. In one week the man was at his work! Later he was under my care, and I found albumen, casts, fatty epithelia in the urine, and oil in the blood, with fat in the leucocytes. He improved, but, exposing himself to cold and wet on a steamboat excursion, contracted acute bronchitis of a severe type. His brother, a physician, naturally was called in to see him, and his prognosis was fatal; he said it was of no use for him to try to get well; advised him to go into the country and live as long as he could. He went. The uncle says that he received a letter from him dated November 12th, 1896, in which he writes: "I have been sitting in a chair since the 5th of June, unable to help myself; cannot lie down; . . . my body is nothing but skin and bones, which up to the first of September was filled with water as big as a barrel. My legs are like a piece of raw beef with, I think, a thousand holes in them, which I cannot compare with anything but a nose on a sprinkling pot, discharging from two to three gallons of water every day. . . . The smell of the discharge is terrible, but I think I am gaining a little, for I can stand on my feet with a little help. . . . I have had several doctors, but they could not do anything for me." He later died.

It is a pity that this patient could not have adhered to the treatment laid down, especially as he exhibited such a wonderful vitality. It is not the writer's fault, as treatment was offered gratuitously. He threw away all his chances.

Case 28.—Mrs. ——, aged 45, in 1892 was taken so ill she was disabled from work. Her sickness was attributed to defective house plumbing, that allowed sewer-gas to escape and permeate her apartments, and she removed at once. Her urine presented albumen, casts, fatty epithelia, which latter were very abundant and characteristic; indeed they appeared like vaginal epithelia when vaselin has been used to facilitate a digital examination. There was loss of appetite, fever, prostration, and weakness. The fatty epithelia held on longer than the casts or albumen. But by following persistently the means here recommended she recovered in a few months and has been well ever since. She has developed a great decision of character, manifesting strength, energy and promptness of action in an emergency that most wives succumb to without any resistance. Fatty tissues do not confer force, they are at once the cause and substance of weakness of muscular and nervous tissues.

---

*Pain would have been a good thing for this case. He would have appreciated his situation better. I am not at all sure but that the conventional idea of the medical profession is somewhat responsible for such misapprehensions. That is, the idea of relief from pain is held so prominently forth that some come to believe in the delusion "no pain, no disease!" Often opium is given for relief, and when the pain is relieved the work is said to be done. But pain is not the disease; it is rather a result of disease. The same is true of fever. Remove the causes and both pain and fever will disappear. Let me not be misunderstood. There are cases when agony must be relieved by narcotics and anodynes; but this must be done after some consideration and not perfunctorily in a routine way. It should also be said that the removal of pain stops the leaks of dynamos so that sometimes Nature has force enough saved to cure. But we are treating of chronic and not acute diseases and insist on the removal of causes as a prime necessity.

†This combination is a rare one. She was sister of the patient noted under puerperal convulsions. She had lived largely on carbohydrates, which was the cause of her illness, which at one time was so serious as to excite the most grave apprehension.

Case 29.—Some four or five years ago a middle-aged wife came under my care. She had an enlarged heart with muffled normal sounds, combined with dyspnœa on going up ascents, and sometimes with severe attacks of palpitation; cerebration somewhat dazed; was bothered about remembering things, and about calling things by their right names, although she managed to maintain well her position as mother of a family and housekeeper; there was some uterine disturbance. She was found with the signs of fatty degeneration in the urine and blood. Treated on the principles here laid down she made a good recovery, which has continued up to this writing (1897). As she got better it was interesting to note the improvement in her cerebration, her movements, her facility of speech, and her appreciation of the change. She once stated she knew if she did not get better she would have become insane; but she did not realize the truth of this so much at the time as she did afterwards. Hind thought is surer than forethought.

Case 30.—In 1882 Mr. S——, a salesman in one of the largest Boston shoe houses, applied to an insurance company for a policy on his own life. The medical examiner said he had Bright's disease of the kidneys, and advised him to do no more about it. The father-in-law of this gentleman, a medical man, satisfied himself of the truth of the diagnosis, and treated him without success; other physicians made the same diagnosis and treated him. The same year the gentleman was brought to me, and physical exploration revealed albumen, fatty epithelia, casts, and sometimes amyloid in urine; oil in blood and fat in leucocytes. These signs were marked and pronounced. He was put on strict treatment, which was followed for two years, when he was discharged cured. In 1895 he applied to the same company for a policy of life insurance, and it was granted. During all his treatment Mr. S—— kept at his business and is at it now (1897).

Case 31.—Two years ago a clergyman 35 years old applied for aid. His appearance evidenced locomotor ataxia, and his urine displayed albumen, casts, fatty epithelia; blood manifested oil; fat in leucocytes; red blood-corpuscles sticky, adhesive, and rotten. After returning to his home in the distant South he assumed the treatment, and the care of two churches! It was only with much difficulty he could carry out the directions given because of impossibility to get good beef; still he persevered, and the casts and fatty epithelia were removed from the urine, though traces of albumen remained; locomotion did not much improve. He afterwards went to an osteopathic hospital, where he kept up the diet, and reported himself much benefited by the manipulations called by this bony name. A month ago he came to New York to study lip reading, but here he failed to keep to his diet. Locomotion was much worse than when he was here first. If this man could be induced to do less with his weak and enfeebled body his chances would be much improved.

Case 32.—Captain ——, 60 years old, veteran of the war of 1861, alcoholist; legs and belly swelled; in 1894 he showed oil in blood, fat in leucocytes, albumen, casts, and fatty epithelia in urine; red and white corpuscles (often copious), filamentous; protoplasmic catarrh, uric acid, and calculi occasionally; complained a good deal of rheumatic pains, which were probably neurasthenic from the urinary catarrh, since his blood did not have the morphology of rheumatic blood. At one time he was treated by a "wonderful" spring water, containing 232 grains of saline matters to the gallon, and in the advertisements of this water Captain —— was gazetted as a wonderful cure, because he kept voiding many calculi! Note.—Those who drink nearly half an ounce of mineral saline matters to the gallon, especially when their systems are loaded with salts beforehand, must expect to void calculi in their urine. My son took away alcohol and put him on treatment along with the use of distilled waters. After a time he voided no calculi, and the evidences of fatty degeneration disappeared; he still keeps well except when he indulges in alcohol. This shows the tendency of this carbohydrate to produce fatty degeneration at least in this case. Captain —— enjoys his new lease of life, and says he is in feelings as young as ever.

Case 33.—October 3d, 1896, I saw Miss D——, dressmaker, a fine, tall lady 35 years old. She was not seen then for the first time. In February, 1896, she had cavernous respiration, dulness on percussion, coarse sibilant râles over the right upper third front of chest. Her blood presented marked fibrin filaments; red corpuscles sticky, adhesive, massed; vinegar yeast, oil; fat in leucocytes. In sputum were granular massive crystalline and encysted gravel, with inelastic lung fibers. Cough incessant and harassing; loss of flesh and strength. On these data a diagnosis was made of tuberculous cavity of the right lung with systemic fatty degeneration. Under treatment her cough had entirely disappeared before October 3d; no lung fibers, but some granular gravel yet to be

detected in sputum; blood normal save for some oil, and a few leucocytes containing fat. Respiration normal; some dulness on percussion, over right upper third front; no râles, and no cavernous respiration. This was a truly faithful patient, and it was the third time her lungs had broken down and healed. Certainly she is an example of the wonders of dietetics.

Case 34.—A man 57 years old was found with albumen, casts, and fatty epithelia in the urine, fat in leucocytes, and oil in blood. He went partially on the diet in 1889. When he came to me he had the morphology of catarrhal urine with occasional traces of albumen, false and true casts, and fatty epithelia. If he could be induced to live strictly according to rule he would, I think, other things being equal, recover.

Case 35.—A young married man three years ago came under my charge for diabetes mellitus and Bright's disease. Besides sugar his urine revealed albumen, casts, and fatty epithelia, and his blood oil and fatty leucocytes; also complete dulness on percussion, from the lower edge of the right thorax to the level of the nipple, in front and behind to the angle of the scapula. The continuity of the hepatic dulness, the absence of respiratory vesicular murmurs, the want of intercostal normal fulness, the absence of complete flatness on percussion, rendered the conclusion inevitable that the liver was enormously hypertrophied. By special care the evidences of fatty ills soon disappeared; the sugar diminished to one-fifth of its bulk and hung there for three months; finally, after remaining at one-sixteenth bulk, the sugar entirely disappeared for a short time, and the hepatic dulness then became normal; the respiratory murmurs were heard where there had been hepatic dulness.

I am sorry to add that this case could not be induced to adhere to the diet; on his own responsibility went to Colorado to spend the winter, took cold there, and died suddenly.

To me the history of the foregoing case is wonderful and well-nigh miraculous. That a double gland of such a complicated dense fibrous structure, so enormously enlarged, should be reduced at all, justifies me in placing this case among the wonders of food effects. It is possible that none of us sufficiently realize what wonderful things can be done with the diseased human body by the simple agencies which Nature employs to cure when one is governed by the dictates of common sense and sound judgment. I should not have believed this history had I not critically studied the case.

Case 36.—In January, 1896, Mrs. S—— bore a babe, and after confinement was blind in the left eye. Doctor W. F. Holcombe, of New York (said to be the first to use the ophthalmoscope in America, and to occupy a chair of ophthalmology here), explored the eye and found retinal apoplexy with dropsical effusion. Tracing it out he found albumen in the urine, and treated the lady on the principles I have laid down. By his kindness I saw the patient when her child was about three months old. The ophthalmoscope revealed the dropsical effusion to be absorbed and the fibrinous clot lying on the retina. The microscope revealed oil in the blood and fatty leucocytes, fatty epithelia and casts in urine, which was also albuminous. The vision was partly restored. In December, 1896, Doctor Holcombe told me her vision was normal. In the light of conventional treatment, this case is also one of the wonders of dietetics. Such instances should be so common as to cease to be wonderful.

Case 37.—Miss ——, aged 55, had when a young woman all the physical signs of tuberculosis of the lungs. She was cured by diet and remained so until two or three years ago, when, after losses of property, with sickness and death in her family, she found herself a lone single woman in her own house. Within a year she came under my charge again with Bright's disease of the lungs. There was dulness on percussion, cavernous respiration, pectoriloquy, emaciation, lung fibers in sputum; albumen, casts, and fatty epithelia in urine; blood did not reveal the morphology of tuberculosis. February, 1896, her oculist reported her eyes had been so poorly nourished that the vitreous bodies were fluid, or partially fluid, and filled with minute opaque spots; a little astigmatism and presbyopia. He prescribed reading glasses, but no other local treatment. The degeneration was dependent upon her general health becoming better or worse,—this is best explained by systemic fatty degeneration. While under treatment her eyesight improved, as did also the physical signs except the albumen. Cough continued, but no lung fibers were found in the expectoration. She died in November, 1896. There was no autopsy, as she lived in a different State.

Case 38.—Ten years previous to this writing a young wife was treated for consumption; the diagnosis was unmistakable to her attendant physicians and their consultants, who

were of the highest repute. She was in bed, pale, thin, wan, coughing hard; hemoptysis. Physical signs of cavities in both lungs; the morphology of the blood was not tuberculous, but it contained oil, and in the white blood-corpuscles were fat globules. The urine when examined revealed abundant fatty epithelia, casts, and two-thirds albuminous! The fatty degeneration was entirely unsuspected till proved to exist by me. The treatment availed but little, as she was too far gone to carry it out.

Case 39.—Miss ——, 40 years old, complained of hebetude and listlessness, inability of exertion, depression of spirits, averring that she never had been better and never would be; had good medical attendance. It was only by persistent urging on the part of a friend that she would see me at all. She was a very quiet little body. Extremities and surface generally cold. There was hyperæsthesia of vagina and uterus, which seemed fully to account for the symptoms, but when these were relieved the hebetude continued, and she would have given up treatment as useless but for the persistence of her friends. The blood was then carefully studied with the urine, and the stigmata of fatty degeneration discovered; quantity small but positive. An effort was made to remove the abnormal signs, and success followed after some months by cure of the hebetude, which has lasted more than three years.

Case 40.—Mr. ——, about 33 years old, was a fine healthy boy up to the age of six, when he almost died from measles; his mother affirms that he never was the same person afterwards, and his mental and intellectual faculties were stunted. He was more or less continually ailing; at one time had consumption, which was cured by systemic treatment; also enlarged tonsils, which were cured by surgery. About four years ago he had a difficulty of locomotion. It gradually increased until he could not walk unless supported by an assistant, or by holding to a rail in going down or up stairs. The nude trunk standing was a torso. The right arm hung down so that the hand almost touched the floor. There was a symmetrical muscular atrophy of the body and limbs, and he suffered great pain in both. His blood showed oil, and fat in leucocytes; urine revealed albumen, casts, fatty epithelia, protoplasmic filamentous catarrh,—these stigmata were not all present at one time but appeared separately, dually, or triply, after treatment began. Several other physicians saw this case away from me, especially when he sojourned at the seashore, and all diagnosed incurable locomotor ataxia. One seeing him later, locomoting normally, said to him, "I don't believe you are cured, and won't believe it!" He was treated on the plans here given, and humanly speaking, without he would have died.

As to his chirography (1896) it must be confessed that it is locomotor ataxic. The stigmata of fatty degeneration are absent, and his locomotion is normal; even the pains have gone. If my readers will not receive this history as to therapy, still it serves to evidence the masquerade and also that there is a prelocomotor ataxic state.

Case 41.—A recently retired business man, aged 74, complained of hearing his heart beat so loudly at night as to wake him and keep him from sleeping. The cardiac area of dulness on percussion was enlarged; there was a slight souffle with the first sound; the sounds were somewhat muffled and distant. His urine contained albumen, casts true and false, fatty epithelia, amyloid bodies occasionally; his blood oil, and fat in the white blood-corpuscles. It was quite difficult to persuade this man that he was ill—he had that confidence in his own knowledge and judgment common to patients with urinary catarrh. He came in to see me on the day of his death, and appeared quite well, though he presented the above stigmata, besides the urine was much loaded with bile and filamentous catarrh. He then decided to go on regular treatment. Being busy I did not make out his written directions, and he consented I should send them later; but before I had time to write them out I heard that he was dead. It appears that, in about two or three hours after leaving me, he walked by a banker's office on level ground in State street, Boston, bowed a recognition to a clerk at the window, immediately staggered, and would have fallen had not a passer-by caught him. At once the clerk ran out and found him dead. It was called "heart failure." This was true, but what made the heart fail? By the above evidence it was fatty degeneration. It may be averred that there should be post-mortem evidence. It would have been well, but such an examination was not made, one reason being that I had returned to my home in New York.

"Heart failure" as a cause of death should always be qualified by naming the exciting cause. If the heart fails because of a bullet or sword piercing it, it would be so stated in military history. Then why not in medical ethics? In the early part of the eighteenth century the "medics" did this better than now, for they *gave the causes!*

The clinical lesson of Case 41 is that patients do not always appreciate the situation, and that physicians also do not always appreciate the situation. With hindsight it seems to me that I ought to have made more of the opportunity. He thought he appreciated the situation; so did I. When I wished several samples of his morning urine, he wrote he did not know why I wished them, as there had never been anything the matter therewith, and this after I had told him that previous examinations had shown the above abnormalities. Could we have foreseen the future for a single day we both would have been more anxious and more careful.

This case also teaches that physicians should communicate as far as possible the serious nature of such cases, and that, if one believes, he must make his patients also believe. Conventionalism conceals too much the fact of heart disease, because conventionalism believes it incurable. After what has been produced here in evidence, is it not the better way to signify with tact that the case is serious, but not incurable if the patient faithfully follows out directions? Once a lady came to me for examination as to heart disease. I found it. I told her. She was so indignant that she never came back.

120 Broadway,
New York City.

STRICTURE OF RECTUM FROM DYSENTERY.

BY FRANK C. SIMPSON, M.D.

Mrs. N——, widow, aged 64, the mother of several children, suffered an attack of dysentery in July, 1896, lasting about two weeks. She seemed to partially recover; was able to be up and around her room, with regular morning action of the bowels though she passed considerable mucus and strained a great deal at stool. This finally, however, caused her to return to bed at the end of a week, and she now had four to six evacuations every morning and suffered greatly from tenesmus. I continued the treatment which had been instituted to relieve the dysentery, viz., two to three drachms of bismuth during every twenty-four hours.

At the end of two weeks I felt confident she had ulceration of the rectum, and gave her a mild injection of silver nitrate, which was followed by some relief. I continued the treatment for two weeks, inasmuch as it relieved the discharge and caused it to assume a natural character; the mucus disappeared, and the fæcal color was good. She continued to have some tenesmus and pain, however, and from three to four evacuations each morning.

At the end of the seventh week I found she was passing small pieces of fæcal matter, round in shape, and about the size of the little finger. I at once suspected annular stricture of the rectum, and upon introducing a finger found the same as expected, and situate about one and a half inches above the anal margin. The age of the patient and the odor led me to suspect it might possibly be cancerous, though the touch was different, and its smoothness suggested it might after all be benign.

I called Doctor J. M. Mathews in consultation, who had no hesitancy in pronouncing it a benign stricture of the rectum. By his advice I commenced using rectal bougies for dilatation, but could only pass a No. 5 at first. I have continued the use of bougies until at this writing I can introduce a No. 9 with very little pain. The patient has improved in every particular; attends to her household duties, goes out on the street, and seems as well as ever; has one movement of the bowels daily without being obliged to resort to purgatives. The dilatation seems to be fairly perfect so far. I had advised she be put under chloroform and divulsion practised, but this she refused, so I am obliged to proceed in the slow way.

In looking up the literature of the subject quite a difference of opinions is noted. I find that Doctor Mathews declares:

> Although it is frequently stated that dysentery is a common cause of stricture of the rectum, I have never seen a case of sufficient worth to convince me of the truth of the statement, or indeed that it was a cause at all. I have many times seen patients who gave a history of having had dysentery and were treated for a long time for that affection, but a close scrutiny of the case revealed the fact that the so-called dysentery was caused by an already existing stricture and ulceration, the rule here being reversed—that dysentery was the result and not the cause. If dysentery really be a cause of stricture of the rectum, how very often one would expect to meet with it in practise, considering the great number of people who have dysentery, especially in warmer climates. Again, practitioners of medicine know that ulceration proper very seldom exists in the rectum during or after attacks of dysentery. I do not deny, but my experience has taught me, that ulceration of the rectum is not caused by repeated attacks of dysentery or diarrhœa. I am sure at least that these causes are infrequent.

My experience has been the reverse of the above, for I have had several cases of ulceration of the rectum following upon dysentery. A year ago I attended a young married woman who had an attack; she had morning passages of mucus with great tenesmus. I treated her in a general way for a week without much relief, but finding she did not improve I examined the rectum and found an ulceration about the size of a silver quarter two inches above the anal margin. Doctor Green was called and operated upon the case, which relieved from all further suffering. I cannot surmise why the opinion has gone forth that ulceration of rectum cannot be a sequel of this disease; and having an ulceration, it is reasonable to believe there might also be stricture.

Doctor Charles Kelsey says:

> In dysenteric ulceration the diseased portion of the lower bowel becomes infiltrated with fibrinous exudation, and as a result of the compression which this exercises is necrosed and sloughs; when the slough is cast off there results a loss of substance, and if this is superficial the membrane may regain its former state, but if deep the usual callous cicatrix is produced in its place, and stricture results.

Cripps and some other surgeons state that one frequently finds stricture following dysentery.

In all my cases I strictly eliminated every possible venereal trouble. The case I report in full had no stricture before the dysentery, as I examined the rectum less than a year previously, and found it free of any trouble.

I believe that the best thing in the way of treatment is to put the patient under the influence of chloroform and cut through the band-like ring; but as before remarked in the case just reported, this was refused, and consequently I had no choice but to employ bougies.—Quite a number of specialists rather advocate and are inclined to give preference to this method of treatment, and it being a slow process it may perhaps be the more safe procedure. One point that presents itself is: What will be the outcome? Is the patient permanently cured, or will the stricture contract if left alone? This is of great importance to the patient, and more so to the physician in his promise of complete relief.

Louisville, Kentucky.

THE CARE OF SCHOOLCHILDREN.*

BY GEORGE W. TUCKER, M.D.

Every physician now and then encounters adults who bear the marks of some physical defect of eyes, ear or throat that dates from early childhood—when at school the blackboard could not be plainly discerned, the eyes blurred, ached and watered on slight exertion; or there was constant suffering from earache, hoarseness, cold in head, etc. Thus many a bright and promising boy or girl has lost that which, in adulthood at least, is most highly prized, viz., acuteness of all the senses; and they may also have been rendered physically deficient thereby, being thus placed at a disadvantage among their more perfect companions and associates. Unfortunately this class of adult patients usually present themselves too late to obtain relief.

One can readily understand how a child, eager to keep up with its classes, and seated in an inconvenient corner or at the far end of the schoolroom, is unable to clearly see the demonstrations made upon the blackboard and is thus led to strain its vision. Perhaps the little one is hypermetropic, a condition which if allowed to go on uncorrected gradually becomes worse; yet he or she is rated and scolded by the teacher for a failing that is in no sense a fault. And still every attempt toward correction on the part of the child only adds to its weakness and suffering. Here is laid the foundation of an asthenopia eventually resulting in strabismus.

Another pupil may suffer from some slight defect in hearing, resultant upon "earache" or "a cold." The physician is rarely called upon to treat these "simple maladies," as they are deemed by the parents, and the domestic management for the one ranges from roasted heart of an onion to hot lamp oil, and for the other from mutton suet to treacle and butter. The teacher ascribes the deafness to inattention or stupidity, and the child often is made to suffer for that which is no fault, but the result merely of ignorance and negligence. Not long since I was called to see just such a child. She had a peculiar pinched expression, open mouth, and stupid appear-

*Read before the North Central Ohio Medical Society.

ance; eyes dull; a dumb aspect; hearing very deficient; enlarged tonsils, and post-nasal adenoid growth. Now this patient was brought me by the parents only after repeated and urgent solicitation on the part of an unusually bright teacher, who surmised the difficulty might be physical rather than mental. It did not require a scientific eye to detect the condition of this child, yet there are hundreds to-day in attendance upon our public schools who are far worse off than was this little patient—children who carry the evidences of incipient diseases of eye, ear, nose, throat, etc., that are utterly neglected by both parents and teachers. Most of these cases could, if taken in time, doubtless be saved the humiliation of impaired vision or deafness, perhaps even the use of spectacles or an ear-trumpet in later years.

But what is the remedy? Simple enough to the medical eye, but unfortunately it involves extra expense, a vast amount of ignorant discussion and gossip leading to opposition, which latter, moreover, is apt to be upheld by the average taxpayer. The demand is for a radical change in the conduct of school-managing bodies, in the conduct of teachers, and still more radical change in the method of selecting the latter.

First of all, Boards of Education should be compelled to employ an expert medical advisor whose duty it would be to carefully examine every child at the beginning of the school year before it is admitted to the schoolroom. This examination should be repeated at least once every twelve months—better still if required at the beginning of every term. The examiner should keep a precise record, moreover, of each examination, both for future reference and comparison, and for the guidance of the school governing body; and the parents should be provided with a copy of the record and afforded full information as to the results that will probably accrue if the individual child does not receive the proper medical attention. I do not know that the matter of treatment should be rendered obligatory upon the parents or arbitrarily enforced, since such measures often thwart the very purpose for which they were intended; it might be better for the parents to exercise individual discretion, and then if they fail the fault is their own.

Next, teachers, who are often in closer contact and for more hours each day with the children than their parents, should be selected not because of favoritism, of graduation standard, of expertness under examination, of standing by certification, or of political affiliations and relationships, but for known and proved abilities as teachers pure and simple, aside from the amount of book lore that has been absorbed; for the example they will afford the pupil, and their ability to understand the youthful mind, and mold it properly. In fact, the teacher should be selected for moral and mental qualities exclusive of parrot-like glibness and familiarity with text-books in use; they should be sought among those who will exercise a patient, persistent, loving, parent-like care of pupils, and who are mentally strong enough to avoid favoritism and to exercise equal, even-handed kindness and justice toward all. Their duties should not begin and cease with the tap of the bell, but they should see that each child before taking its seat has dry feet and clothing and has proper warmth and pure air; that it is properly clad when the session is over; they should be sufficiently expert to differentiate between mental dulness and physical morbidity, and able to detect ordinary departures from health, including impaired vision, voice, and hearing.

All this of course would necessitate larger salaries, since only by such can experienced individuals be attracted. It is a notorious fact that those who are fitted for places in our public schools cannot be readily obtained, since there is a demand therefor in more remunerative walks of life, for the majority of teachers are pinched down to a salary scarcely equaling that of the average day toiler; consequently talent is the exception rather than the rule—even the social status of the teacher in many parts of the country is deemed beneath that of the shop-girl unless there are special compensating advantages in the way of wealth, family or other relationships, etc.

Finally, in this era of progression can the medical profession hold itself blameless when manifestly it is its prerogative and duty to point out the necessary reforms and urge their adoption? Is it not imperative upon each medical man to lay the facts before the heads of every family with whom he sustains

confidential professional relations, and also to endeavor to educate school boards and the public at large, to the end that they shall bear their share of the burden imposed, and thus endeavor to secure the needed reforms? Shall it be said of this great profession that on a question of such vital importance it is willing to emulate the Levite and "pass by on the other side?"

Mansfield, Ohio.

URIC ACID DIATHESIS.*

BY F. B. MACRAE, M.D.

When one studies minutely and connectedly the action of uric acid when it appears in the human economy in quantities sufficient to be pathological, it will be recognized as a "hydra-headed monster." It may at first create very little noticeable disturbance, but the latter may be augmented regularly and persistently with the ever-increasing quantity, until it manifests itself as a mild form of rheumatism during or just preceding some atmospheric condition, that is calculated to mislead,—and too often has all the blame attached to it and entirely obscuring the true etiological condition. The mild and primary symptoms are further magnified, and intensified often, by the use of alcoholic stimuli which carries the nervous system beyond recognition of the real trouble, temporarily at least. It confronts the practitioner in so many forms that it baffles the skill of the most learned and experienced in the profession. While one can trace its footprints in many phases of disease, in others it is so completely masked or obscured that a mistaken diagnosis results, and improper medication follows, too often leaving the patient worse than before.

Uric acid has been defined as the "ashes of nerve and muscle waste," and therefore one expects to find it in all parts of the body where vital changes are going on; yet if all the organs are performing their respective functions, this waste, even in large quantities, is readily taken up and eliminated along with other waste products by kidneys, skin, and bowels. When the function of the kidney is interfered with, it is difficult to rationally determine just where the enemy is at work or the extent of its devastation, and upon this knowledge depends the treatment, which must be formulated to meet the necessity of each individual case.

Many of the neuroses can be directly traced to the action of uric acid or its salts, and many inherit the uric acid diathesis; while others, through error in hygiene and diet, acquire most readily. Sometimes by sudden chilling of the skin, or great emotional excitement, a genuine uric acid storm, so to speak, may be brought on which manifests itself in an attack of gout, a severe sick headache, or an apparent malaria, etc. All these conditions may arise through the vital organs ceasing to act in a normal and physiological manner, and dire results may follow in train.

In examining the urine it is necessary to bear in mind the true and trite saying of DaCosta, that it is "what is *not* found in the urine should cause alarm," for the reason that urine voided regularly and naturally can be as clear as spring water; this latter may afford unmistakable evidence that certain elements are being retained within the body, and inasmuch as they are products of decomposition are poisonous, since thereby the emunctories may become choked with débris bringing a varied train of reflex symptoms. One needs to be a close observer to detect just where Nature demands a helping hand to restore a lost equilibrium, since complication may follow upon complication and a congested portal system may induce indigestion, impacted colon, palpitation of the heart, etc. Again, an ammoniacal urine may afford unmistakable evidence that uric acid is present to a pathological degree and that decomposition is taking place along the channels of exit for the secretion of the kidneys—a most disastrous result, inasmuch as the acid products are so liable to attack the lining membranes of the tubules and cause the tissues to literally break down. So much depends upon the integrity of these sensitive organs that they should ever be in the mind's eye. The very shape of uric acid crystals, moreover, renders them formidable, being triangular or rectangular, often very sharp cornered, therefore capable of doing much injury to the mucous membranes over which they pass.

*Read before the Central Texas Medical Association.

There are several classes of calculi. First, the disintegrated renal form, very numerous, and found in various shapes and sizes, from that of a pin-head to an ordinary pea; are of a reddish-yellow color, very hard, with a nucleus composed of ammonium urate in great part, with free uric acid in small quantity, and a trace of carbonate ammonia and magnesia.

Another form of disintegrated *renal* calculi is composed of many polyhedral fragments, rounded at angles, of hard consistency, and of a yellowish-red color; they seem to be formed of concentric layers whose chemical composition is almost entirely uric acid, with a trace of uric pigments.

Next come disintegrated *vesical* calculi in the form of many fragments of granular aspect and grayish-white color; they are brittle, easily broken, porous throughout, and chemically composed largely of urate of ammonia, and carbonate of ammonia and magnesia.

Another form of vesical calculi is granular and friable, of grayish-white color, with a composition of phosphate of ammonia and magnesia for the greater part, along with a small quantity of carbonate of lime, and a trace of calcium oxalate.

Still another, and typical vesical calculi, presents thoroughly disintegrated fragments of decidedly angular and granular aspect, of fragile appearance, grayish-white color, and composed of bicalcic phosphate for the greater part, and oxalate of lime with a trace of carbonate of ammonia and magnesia and xanthin.

All people are more or less sinners against Nature, but environment has much to do with the individual powers of resistance. The more simple one's food, the less he is apt to suffer from indigestion; much depends upon the functional activity and integrity of each and every organ of the system.

It must be realized that the uric acid diathesis is not a disease *per se*, but a symptom, and this idea should be borne in mind while we are considering the line of treatment.

In the rational treatment of any disease, it is first of all essential to ascertain its source. In the uric acid diathesis it will often be discovered there is too much acid throughout the system, which may arise from too free use of alcohol, of nitrogenous food, too sedentary habits, indiscriminate neglect of the kidneys and other organs of elimination, and improper hygiene.

It is estimated that every square inch of human skin contains 2800 pores, and these when physiologically discharging their duty are efficient channels of elimination of waste products, hence the necessity of keeping these thoroughly opened. To strengthen the system in this direction the aid may be invoked of heat, either in foot-baths or full baths, followed by brisk rubbing with rough towels and massage at regular stated intervals. Electricity also is extolled for its wonderful effects in stimulating the circulation to the periphery and quickening glandular action. Also Hartshorne recommends the following:

℞ Bruised juniper berries, 4 drachms.
Mustard seed, 4 drachms.
Ginger root, 4 drachms.
Horse radish, 1 drachm.
Parsley root, 1 drachm.
Sound old cider, 2 pints.

Make an infusion and give a wineglassful three times daily.

Good results will often be had from infusions of buchu, digitalis, and uva-ursi, along with sweet spirit of nitre and acetate of potash, in proportions and doses to meet the demands of each individual case.

One of the most essential points to fix in the mind of a patient at the beginning of any treatment is the importance of unswerving persistency, as this type of cases are calculated to try the utmost patience of the practitioner.

After diagnosis is made, with all the light on the case possible and a deliberate review of all the symptoms connected therewith, treatment may be begun with a mild, reliable stimulant to the secretory and excretory organs, composed of calomel one grain and sugar of milk three grains, mixed, triturated, and divided into three powders, one being taken dry on tongue at bedtime, and followed in the morning with a fresh Seidlitz powder or freshly prepared bottle of effervescing citrate of magnesia.

The treatment, then, should be upon the line of lithiates and salicylates in some feasible form, and are often most efficient when combined.

Other remedies are frequently called for to

meet individual idiosyncrasies presented to the mind of every rational and intelligent practitioner, such as analgesics, hypnotics, laxatives, and digestive aids.

From the literature at my command I have been unable to find any trace of a female a victim to uric acid diathesis, neither have I ever seen the malady among the gentler sex. I am anxious to have this phase of the subject examined, not that I believe females are exempt, but because their habits of life probably do not favor its development, or else it is overshadowed by some more or less grave disease or some sequel affecting the generative organs.

Temple, Texas.

INTERESTING SURGICAL CASES.

BY A. K. BELL, M.D.

J. D——, colored, aged 45, was struck by a passenger train going thirty-five miles an hour. He was first thrown into the air, and on coming down the pilot of the engine threw him sixty-three feet by actual measurement. Thirty minutes after the accident he was not unconscious, nor was the skin broken on his body; only one slight contusion on head and two on body. Was suffering from severe shock; pulse feeble; surface cold and clammy. Was wrapped in a blanket and hot-water bottles placed around him; also one-eighth grain morphine and $\frac{1}{150}$ grain atropine administered along with whiskey and camphor. In three hours he regained his normal condition.

A colored man, aged 30, stout and strong, was digging in a railroad cut, when a great pile of dirt fell upon him, injuring his back and producing continued pain in abdomen, from which he suffered for three years. Finally was taken with colic and died. The post-mortem revealed a laceration of the connective tissue of the ascending colon. The intestine had slipped through it, producing a strangulation of the bowels, which was the cause of death. I only saw this case at post-mortem.

S. C——, Jew, aged 25, a gambler and morphine *habitué* for ten years, while asleep was struck, at 5 A.M., on the left side of the head just above the ear with a wagon standard; was made unconscious at once. At 4 P.M. I saw him. He had bled profusely from ear and nose, swallowed blood and vomited it. Pulse 40, respiration slow and difficult; no paralysis. It was afterwards learned that just before retiring he had taken two grains of morphine hypodermatically at 1 A.M. The skin was not broken and there was very little contusion. Fracture of skull was diagnosed, the scalp was shaved over left parietal bone, a six-inch crescentic incision made, and bone exposed; fracture radiated from one point three ways. Was trephined at point of radiation, and about one ounce of clotted blood removed. Breathing and pulse improved at once. He lay unconscious for fifteen days and awoke with clear mind and made a good recovery.

Did not the dose of morphine he took before receiving the blow help to sustain him?

John M——, white, aged 30, intemperate, was flourishing a pistol, when it accidentally went off, the ball passing directly through head, frontal region, and temple. Some brain matter escaped. Wound was washed and dressed and he made a good recovery. Still living and so far has suffered no inconvenience from wound.

Madison, Georgia.

A PECULIAR CASE.

BY L. J. WEIR, M.D.

On the 30th of January last I was summoned to see a lad four years of age who had been ill for two days with gradually increasing dyspnœa; was very hoarse—voice completely lost later. He had scarlet fever two years before, followed by abundance of albumen in urine, and most of the time since complained of frequent urination, at times very painful. For all he had for several months been, to use his mother's simile, "as fat as a pig;" had hypertrophied tonsils two years or more ago, and afflicted at various times with sore throat. His countenance was bright and anxious, but he was likewise very cyanotic; very restless, tossing from one end of the bed to the other. Pulse 126 and regular; temperature 99°; respiration 40 and labored; made no complaint save that he could not sleep; circulatory system practically negative. Retraction of chest-wall during inspiration evidencing obstruction of passage of air into lungs; no dulness except possibly small areas in interscapular region; sibilant râles in places through lungs. Tonsils hypertrophied, throat red and slightly inflamed and œdematous, but no false membrane; some laryngitis

and bronchitis—in common parlance "a bad cold" plus laryngeal obstruction.

He was ordered calomel and soda followed by a saline, also an emetic dose of ipecac; then muriate of ammonia with ipecac; and near the termination of the attack nux vomica and alcohol.

On January 31st, twelve hours after death, a post-mortem was held, which revealed *rigor mortis* marked, body well nourished, lividity posteriorly. No external injury or disease; no fluid in abdomen or chest cavities except normal amount in pericardium; heart hypertrophied and dilated; goose-fat and also red clot in right ventricle; small white and larger red clot in left ventricle; clots extended up into the vessels; all the valves normal except perhaps a little thickness in places. Lungs œdematous; soft, illy-defined areas of consolidation posteriorly; bronchi containing mucus. Trachea and larynx lined with thin white exudate, mucous membrane of larynx much swollen and œdematous; glottis almost closed by œdema and thin false membrane. Stomach and intestines distended with gas, the result of post-mortem; decomposition otherwise normal. Vermiform appendix behind cæcum extended upward parallel with colon for about two inches, then reversed with a short turn, passing downward two inches, in contact with the first portion—about the size of a lead-pencil. Liver a little too large. Spleen normal. Kidneys embedded in a surplus of fat; the left very small, irregular in outline, hard to the knife, the fibrous capsule adherent. Proportion of the cortex to the medullary portion was about one to six instead of the normal two to three; cortical portion about one-twelfth inch thick except at the end of the kidney, where it was about normal; cortical markings absent except in a small portion of the organ; medullary portion infiltrated with fat very hard and fibrous. Right kidney three times as large as left (larger than normal); irregular in form; exhibited cicatrices, the effects of infarcts or other local lesions—capsule peeled readily except at these scars. Right kidney soft; proportion of cortex to medulla about three to three; cortical markings indistinct.

Section of left kidney under microscope exhibited almost entire absence of tubules in both cortex and medullary portions, their place being occupied by connective tissue. The glomeruli small, irregular in size, and embedded in scar tissue.

Section of right kidney exhibited intertubular infiltration of leucocytes and exfoliation of epithelial cells into tubules. Manifestly there was latent parenchymatous nephritis in left kidney, inducing almost its entire destruction. The right kidney also suffered from an acute nephritis. The bladder was small, the wall greatly hypertrophied—about one-fifth of an inch thick, probably the result of old cystitis.

Death was doubtless due to fibrinous laryngitis with œdema, induced by exposure, "taking cold," and indirectly by nephritis.

West York, Illinois.

THE SURGICAL TREATMENT OF CYSTITIS DUE TO CHRONIC PROSTATIC OBSTRUCTION.

BY D. J. HAYS, M.D.

The subject of the radical cure of prostatic hypertrophy and the pathological conditions induced in the urinary tract by the obstruction has been under discussion by surgeons for many years.

If pathological specimens of the prostate are examined they are found very irregular. Enlargement may take place in all directions; sometimes only one lobe is enlarged, and, again, the whole trouble may be due to overgrowth of the middle lobe, which, when very much enlarged, gives rise to complete retention of urine. As the gland enlarges the length of the prostatic urethra is increased to three, four, and sometimes five inches; the weight from six drachms to several ounces. The distorted urethra suffers a deviation in direction, decrease in caliber, and the internal vesical orifice is elevated behind the symphysis pubis, which explains the difficulty often experienced in introducing instruments into the bladder.

Obstruction in the urethra from either stricture or prostatic obstruction gives rise to the same pathological changes in the urinary tract behind, and various morbid symptoms ensue — decrease in the force of the urinary stream, imperfect evacuation of the bladder, a little residual urine remaining

after each act of urination. Both the obstruction and the residual urine increase from month to month and year to year—the latter undergoes ammoniacal fermentation from the presence and action of putrefactive bacteria; the inflammation extends from the mucous to the submucous and muscular coat; the bladder-walls become dilated and hypertrophied from overwork; lastly, contraction takes place with loss of extensibility.

The backward pressure of the septic urine dilates the ureters producing ureteritis, and the septic inflammation rapidly extends in the direction of the kidneys, producing pyelitis; and, finally, extension into the substance of the kidney, ending in pyelo-nephritis. The patient's general health suffers from pain and frequency of urination, and at last septic inflammation and uræmia bring about a fatal termination, but not until months and years of the most intense suffering have passed.

In the cases of cystitis due to prostatic obstruction which are not relieved by withdrawal of the residual urine with the catheter and antiseptic irrigation of the bladder, some of the various operations must be performed. The operations which are practised at the present time are: The direct method, prostatectomy: Simultaneous ligation of both internal iliac arteries (Beyer operation): The indirect (bilateral), castration: Resection of the vasa deferentia: Permanent suprapubic drainage.

Prostatectomy through the urethra or through the perineum, as first practised by Mesier and just advocated by Reginald Harrison, or the suprapubic, as first devised by McGill, or the combined suprapubic and perineal operation, have proved so dangerous and the results so unsatisfactory that it is safe to predict in time such will be erased from the pages of surgery. Notwithstanding its frequent and continued recommendation, surgeons of acknowledged ability hesitate to perform the operation, and this is not to be wondered at when one contemplates the anatomical structures to be passed through, particularly in the low or combined operation, and when is further considered the operation is undertaken on an old man who has suffered long and continuously; the whole urinary tract is demoralized and the wound bathed by the most irritating and penetrating substance known—urine that is loaded with pus and putrefactive bacteria.

In June, 1893, Professor William White, of the University of Pennsylvania, published an article in *Annals of Surgery* giving the results of bilateral castration in producing atrophy of the normal prostate in dogs, and suggested its possibility in producing atrophy of a hypertrophied prostate in old men. While he was experimenting, Raumm, a Norwegian surgeon, is credited with having performed the operation on the human being. Doctor Haynes, of Los Angeles, California, was the first to perform the operation on the human subject in this country; and then the onslaught commenced. Favorable and most gratifying results were reported from all parts of the country. If the pathological conditions are considered, it is unreasonable to expect a long-standing cystitis, pericystitis, and perhaps pyelitis and pyelo-nephritis to disappear in so short a time as was claimed by many of the operators.

Unless a positive diagnosis is made that the prostatic obstruction is accountable for the existing urinary disturbance, which is not always easy, old men will be in danger of losing their testicles, removed for the diseases that have symptoms in common with hypertrophied prostate, namely, malignant and tubercular diseases of the prostate, infective disease of the prostate and bladder, and vesical calculus.

At any rate, the operation of bilateral castration for hypertrophy of the prostate must be classed in experimental rather than practical surgery.

My own personal observation of the operation has been confined to one case which certainly proves nothing, which was not benefited in the least.

The main indication for treatment in cystitis due to prostatic obstruction is to give the bladder complete and continuous rest. This rest may be obtained by permanent suprapubic drainage. This operation not only affords prompt relief after all other methods of treatment have failed, but it also prolongs life by preventing further extension of inflammation.

In the year 1893 I reported two cases in which I established a permanent suprapubic fistula for cystitis due to prostatic obstruc-

tion; both are still alive and are passing all urine through the artificial urethra. My experience with suprapubic fistula has been that it is very difficult to keep the opening sufficiently patulous by any kind of plug, particularly if the after-treatment is entrusted to the patient; consequently, for the past three years I have used a permanent suprapubic drainage tube. Bladder drainage has been wonderfully improved upon of late.

The tube strongly recommended by Doctor Wiley Brown, of St. Louis, has an acorn-shaped bulb on the end for the purpose of preventing it from falling out of the bladder, and on the other end is a rubber cap which is adjusted upon the screw device and prevents the tube from dropping wholly into the bladder, and which also prevents the outer end from friction with the clothing when walking about. The drainage tube is also supplied with a piston, having a plunger on the end which performs the double purpose of preventing incrustations from taking place in the lumen and keeps the water in the bladder while in position.

The two principal objections to this tube are: The curve is rather sharp and liable in some cases to come in contact with the enlarged prostate, which produces irritation and an urgent desire to urinate; the acorn-shaped bulb on the end renders it almost impossible, or at least very painful, to remove it for the purpose of cleansing.

The prostate is the most sensitive portion of the bladder, and any tube that is used for permanent suprapubic drainage should be fitted so that no part of it will come in contact with the prostate. Irritation of the general surface of the bladder does not produce pain and desire to urinate. This is illustrated in a case of stone; when the patient assumes the recumbent position and the stone rolls back toward the fundus, the urgent desire to urinate ceases at once if the prostatic urethra is not inflamed by long-standing cystitis. The same may be said of tumors and vegetations affecting the general surface of the bladder; it is only when they grow on the prostate that the constant desire to urinate, with pain, is present.

Senn's tube for suprapubic drainage after suprapubic cystotomy for prostatic obstruction has some of the same objections as the Brown tube. It has a large bulb on the end that fits down behind the prostate, and when granulations form around it, it is very difficult or almost impossible to remove for the purpose of cleansing, which is absolutely necessary in all cases; again, the distance between the skin and pouch behind the prostate where the tube must rest to drain the bladder varies in different cases, corresponding with the thickness of the abdominal walls and the enlargement of the prostate. In his tubes, which are composed of silver and shaped something like the letter S, the portion between the two curves which is intended to fit between the skin and pouch behind the prostate is the same length, and it is evident that they will not fit all cases.

The method I have practised myself is to first make a regular suprapubic cystotomy and drain the bladder by siphon action and antiseptic irrigations until the wound contracts down to the size of the tube and the patient is able to be up and about. The second step consists in fitting a permanent drainage tube, which I do as follows: I take a gutta-percha tube and place it in the wound and measure the distance from the skin to the most dependent portion of the bladder, which is just behind the prostate. If the tube makes injurious pressure against the prostate, which may be known by pain along the urethra and frequent desire to empty the bladder, I bend the point of the tube backward until its presence is not felt in the bladder. I then make a drawing of the tube and send to an instrument-maker for the purpose of having a silver tube made, which is worn continuously. At first, some urine escapes by the side of the tube, but when the wound contracts down solidly the escape is very slight. It has no bulb at the end and can therefore be removed readily by the patient for the purpose of cleansing. On the outer end it is supplied with a cap which prevents it from falling into the bladder. Permanent suprapubic drainage in prostatic obstruction is destined to undergo improvement both in tube and technique in the future, unless the Raumm-White operation of bilateral castration cures them all and renders this operation unnecessary. Surgeons who depend entirely upon the catheter in advanced cystitis due to prostatic obstruction are al-

most as culpable as those who rest their faith on proprietary medicines, from which the chief value derived is to upset the stomach of the poor unfortunate patient.

I do not claim that permanent suprapubic drainage in chronic prostatic obstruction is a curative operation, but simply palliative. It fulfils one great indication, and that is it gives the bladder prompt, complete, and continuous rest, and renders life tolerable in those old men who are suffering with this distressing affection.

Milwaukee, Wisconsin.

THE GENERAL PRACTITIONER.

He must not walk his rounds for fear his patients think him poor,
And dearly do they love to see a carriage at their door;
And if the horse is fat, "He must have little work to do,"
And if he's lean the reason is, "He starves the poor old screw."

Should he call upon his patients every day when they are ill,
His motive plainly is, "To raise a great big doctor's bill."
If he visits them less frequently — thus less'ning their expense—
The chances are he'll be accused of wilful negligence.

He must work all day and half the night, and never say he's tired,
For the public look upon him simply as a servant hired.
And should he take a holiday, he'll find when he comes back
Some patients have resented it by giving him "the sack."

Concerning money, he must seem indifferent to be,
And folks will think he practises from pure philanthropy;
When we hear him boasting of the guineas that he earns,
We wonder if they all appear in his income-tax returns.

About his own afflictions he must never say a word;
The notion of a doctor being ill is so absurd!
And when, perhaps from overwork, he's laid upon the shelf,
His sympathizing patients say: "Physician, heal thyself."

— *The Lancet* (London).

THE MEDICAL AGE.

A SEMI-MONTHLY REVIEW OF MEDICINE.

—PUBLISHED BY—

WILLIAM M. WARREN, Medical Publisher, Box 470.

All communications regarding papers, reports, etc., should be addressed to the Editor of the MEDICAL AGE, P. O. Box 470, Detroit, Mich.

Matters relating to advertising space, etc., to be addressed to the publisher, William M. Warren, Box 470, Detroit, Mich.

The editor cannot engage to return rejected manuscripts or to correspond with the writers thereof, unless such are accompanied by sufficient postage.

DETROIT, MICH., OCTOBER 11th, 1897.

Editorial.

HYDROPHOBIA VS. COMMON SENSE.

Twenty-two centuries of medicine and civilization have inculcated little that is new regarding the dread malady known as rabies or hydrophobia. Aside from mere speculative theories, the literature thereof is wholly repetitious, being nothing but revamped collations from the essays of Aristotle, Dioscorides, Cœlius Aurelianus and others of the pre-Christian era; further, the teachings of medical schools are obsolete since the superstitions of ancient Egypt and Greece still find place, and the wisdom of the teacher in this one matter is little superior to that of his pupils. This is necessarily the case since less than one-fiftieth of one per cent. of medical men ever encounter the malady, either real or supposed, in animal or man, and the opportunities for acquiring critical and practical knowledge are of the rarest. Worse than all, an ignorance that of itself is venial is made criminal by the vaporings of an irresponsible general press.

When at a dinner party Sidney Smith was told a certain reverend prelate was unable to be present owing to the bite of a ferocious canine, he remarked he "would like to hear the dog's account of the accident," and it is often a matter of some wonderment what the opinion of our canine friends and "poor relations" must be when a community is laboring under a mad-dog panic, which invariably is founded upon ignorance fostered and aggravated by blind but well intended efforts at repression.

"Formerly a mad dog was as rare as a black swan," says Prof. Chas. Bell Taylor. "It is an old saying we never have more than

one at a time in England, and we have for years been altogether without any. Mr. Paritt, for instance, the superintendent of the Dog's Home for seventeen years, never saw a case. But latterly, under the influence of newspaper 'boom,' rabies has become almost as common as measles: every village seems to have a specimen or two, and each dog-owner looks askance at his own poodle expecting him to go mad on the morrow. Sixty thousand dogs have recently been slaughtered in the city of London alone: for months an average of two a day were beaten to death on the streets under the plea they were stark, staring mad." So great was the glut of dead canines that it became impossible to dispose of them otherwise than by cremation. And meanwhile, amidst all this carnage, and up to the present day, the English Hydrophobia Commission was inoperative because it could not find a genuinely rabic dog to experiment with!

It is not within the province of this sketch to either deny or affirm the existence of rabies as a disease *sui generis*, or to meddle with the doctrines of M. Pasteur, but if possible to shed light upon and afford information regarding a subject so shrouded in mystery and uncertainty as to be little understood even by a respectable minority of medical men; also to allay in some measure the senseless alarm that is constantly arising from the publicity given to cases of most doubtful if not altogether spurious character —cases that have brought about the persecution of innumerable innocent, inoffensive canines, and death to a goodly number of the human race, including many suicides, and now and again a murder most foul, as illustrated by Herbert Maxwell in his "Sports of the Wild West," and also by the following Associated Press dispatch:

Cohoes, N. Y., Feby. 3d, 1896.—Sunday night George Waterhouse . . . was taken ill and showed signs of hydrophobia. . . . The physicians to end his sufferings ordered he be smothered, *which was done.* He was bitten by a dog *six years* ago!

Primarily rabies appears only as an affection of the dog family; secondarily and to less degree of other true carnivora. Infectious to some degree, it is *not* contagious—*i.e.*, it is communicable only by the bite of some meat-eating creature bitten by another meat-eating animal, that in turn has been infected by a third, and so on. To secure this infection, the disease must be fully developed in the creature offending, and the virus brought in direct contact with the circulation. Under all other circumstances the poison is innocuous; it may be applied to the flesh, or swallowed; and the flesh and milk of the creature producing it may be employed with impunity as food.

The saliva of the carnivoræ is the only factor that can ever communicate the disease; it alone contains the virus. This does not apply to the saliva of omnivoræ, not even of man. An inoculation by other assumed rabic material procures no results that do not with equal certainty accrue to infection with other septic (putrid) non-rabic material. This has been repeatedly proven by the ablest pathologists of the age, including such men as Rienzi and Amoroso of Italy, Chas. Bell Taylor of England, Spitzka of New York, and (especially) Galtier of France—all well and widely known, and the latter recognized as one of the most thorough, candid, and able scientists of any age or era. All discovered that while the saliva of rabid dogs *might* inoculate rabbits, guinea-pigs, etc., the same product as derived through these creatures *will not* in turn infect the dog or any other animal! Experience, and experiment too, aside from the foregoing, demonstrate that rabic poison can be transmitted only by and through animals that depend upon flesh for sustenance, and that are likely to retain in and about the mouth and teeth particles of decaying or putrid matter that, of themselves, are capable of invoking septic processes (blood poisoning) and consequent fatal results. The foregoing leads to the inevitable conclusion that so-called hydrophobia in the great majority of instances is a spurious disorder, one that would never have been accepted as specific but for the fact an animal could, directly or indirectly, be linked therewith; also that it is the sequel of functional disturbances of the great nerve centers as the result of simple septic poisoning, or of the fears and imaginings of the patient and friends.

If we lay a wafer upon a bit of highly polished steel—a razor-blade for instance—then

breathe thereon, and subsequently repeat the process without the wafer, the outlines of the latter will reappear; and this is true even when months have intervened since the first experiment. If, then, an inert object like the razor-blade is so impressionable to delicate influence, how much more impressionable must needs be the nervous system of man, which is especially designed to record such influences! And when we fully consider the influence of shock, fear, joy, anxiety, sorrow—that persons have died suddenly in the midst of robust health, or in a few moments or hours, from these causes; that individuals by the unexpected loss of friends and possessions have been rendered permanently insane, thrown into convulsions, hysterias, epilepsies, catalepsies, and the like, reduced to imbecility, rendered paralytic, and otherwise invalided, perhaps driven to suicide — it can readily be surmised how cases of hydrophobia are manufactured and multiplied, especially where an animal can in most remote degree be cited as a factor. As medical science progresses and further insight is had into the phenomena of multiple maladies having their origin in, or that are made manifest through, the nerve centers, the conclusion is being rapidly forced upon thinking and observant minds that hydrophobia is a development of irritated or vitiated nerves, and may arise from numerous and variable causes, none of which are necessarily specific. It is well understood by pathologists that changes may take place within the brain and spinal cord so affecting a single nerve of sensation as to procure precisely the same manifestations as are developed by irritants and poisons introduced into the body from without; and no physician, however able or expert, no neurologist, however experienced or learned, has ever been permitted to fathom the mysterious workings of the nervous system under profound agitation of the mind, or to discover what influence this perturbed mind may incidentally exert upon nerve centers, and through them upon morbid agents that may already have been implanted in the economy!

The eminent Principal Dock, of Edinburgh, to the last day of his splendid life maintained hydrophobia is merely a nervous affection independent of the dog and all specific inoculation — induced by fright, in fact. Baron Larrey, famous among French surgeons and a member of the Emperor Napoleon's household, tells us he saw numerous cases of hydrophobia pure and simple occasioned by gunshot wounds among soldiers in Egypt and Syria; and the same is chronicled by a latter-day colleague anent the war in Algeria. It is well known all the evidences of the disease may be induced by irritation of the medulla of the spinal cord, or the presence of tumors or other unnatural growths; and during the present season a well marked case of hydrophobia developed in a London hospital in a patient never bitten or wounded by any animal, as the result of impacted wax in the ear; another in Chicago arose from the presence of tapeworm; two in San Francisco in 1887 from chronic ague; an interesting case is recorded by Doctor Dolan (the well known editor of the *Scalpel* and formerly of the *Provincial Medical Journal*) developed by the larvæ of tapeworm, and a like experience accrued to Doctor Branfoot (*Indian Medical Gazette*). Such cases might be multiplied almost indefinitely. Again, one Stephens, in this country, to uphold his belief that hydrophobia in man is "by fancy bred," never lost a chance of being bitten by a "mad dog," and though thus wounded nearly three score times, still survives; and a German disciple, one Fisher, in like manner was bitten nineteen times during ten years. Finally, Mr. Mayhew, the eminent veterinary authority, whose opinions moreover are endorsed by Professor Youatt and Sir Thomas Watson, tells us:

> Rabies is not only a febrile disease, but the dog is positively eaten up with raging fever; every fiber of his body is inflamed, and the eyes which glow like living coals in the early stage of the malady become bottle-green, and slough and fall from their sockets ere death closes the scene.

From the foregoing facts and quotations it may safely be said that true rabies is as rare as ever; that the present tendency is to accept the malady far too liberally; and that according to modern ideas it is only necessary a dog be ill, excited, eccentric, furious, or mentally afflicted, to be pronounced "mad!"

The proportion of canines, much less human beings, that develop rabies as the result of wounds inflicted by other and really rabic

meat-eating creatures, is excessively minute —less than two per cent. The poodle of the famous Hertwig was thus inoculated nine times without result; at the schools of Lyons and Alfort in France dogs have been bitten from thirteen to thirty times in vain; and evidences innumerable might be cited where animals were thus attempted to be infected, all the way from six to sixty times, without the slightest manifestation of the malady resulting. Professor Grove declares that not more than one dog of twenty bitten is ever infected; Hamilton says one of twenty-one; John Hunter one of twenty-four; Professor Neumann one of thirty-five; and the extended experiments of Professor Fabre gave but three infections out of 1936 bites!—yet all these statistics confessedly include many cases of false rabies.

All punctured, incised, and cicatricial wounds, regardless of source or age, exhibit a tendency to reopen under impoverished conditions of blood and nervous system, such as scurvy, blood-poisoning, cancerous diseases, the excessive ravages of vermin, etc.* But the theory whereby rabic virus is supposed to lie dormant in the vicinity of the wound for periods varying from a week to a quarter of a century is too silly to require comment, involving as it does physiological and pathological impossibilities.—It presupposes either the non-existence of capillary circulation, or the circulation at a complete standstill without any of the manifestations of such phenomenon.†

The period of incubation necessary for the development of any poison brought in direct contact with the circulation cannot well exceed forty days, and even this is an unconscionable limit; and a hydrophobia or other disease developing later, no matter what the attendant phenomena or symptoms, is never by any possibility rabic, but merely an incidental, or rather coincidental, development.—It must be remembered that coincidences are much more frequent in this world than has ever been suspected or imagined; more frequent than facts, as many an experimenter in the physiological laboratory has found to his chagrin and sorrow.

(*To be continued.*)

* It may not generally be known that the body louse in overwhelming numbers tends to provoke that almost invariably fatal malady known as pernicious anæmia, and the writer is cognizant of several deaths directly traceable to these vermin, and two, personally familiar to him, occurred respectively in the person of a soldier of the 27th Michigan Volunteer Infantry during the late war, and in a *lepero* of the city of Guadalajara, Mexico.

† If this were true, the loafer who engaged in a broil over night in which his optics became the target for his opponent's fists would have no occasion for raw beefsteaks or vinegar and brown paper to mitigate the black eye he expects the next morning.

REVISION OF MEDICAL PAPERS.

The *Medical and Surgical Reporter* pertinently suggests every society, and especially the American Medical Association, appoint a revisory committee whose duty it shall be to receive, reject, curtail, or abstract every paper not of suitable length and interest with the same impartiality as if presented for publication.

Better yet if the editors of association journals be delegated the power, and forced to exercise it, of cutting from articles presented for publication all repetitions and superfluous verbiage.

Medical associations have become altogether too unwieldy, owing to the tendency on the part of young men to present long papers, the sole purpose of which is getting their names into type and securing reprints with which to advertise themselves throughout the length and breadth of the land.

To put it modestly, eight-tenths of the material offered for publication, even in the best of journals, would be of more benefit to the world if it received a final resting-place in the waste basket. We may say on top of this that the editors who supervise articles going into their journals are extremely rare; indeed the number of medical men is "Legion" who assume to dictate to the editor as to the publication of papers.

EDITORIAL NOTES.

The Prince of Wales as a Medical Man.—

Not long since the Associated Press announced that His Royal Highness, the heir presumptive to the throne of Great Britain, had been elected an honorary member of the

Royal College of Physicians. As a matter of fact the Prince is one of five laymen who have been elected for this position, all of whom were chosen for some special cause. In this instance the dignity is not supposed to confer the privilege of medical practise, but is merely an honorary personal tribute.

It does, however, appear somewhat strange that a body of such high standing as the Royal College of Physicians should put forth a diploma which is suggestive of the "hog Latin" of the Middle Ages, and that even yet, to a certain extent, dominates legal lore.

This diploma in the case of His Royal Highness reads as follows:

Sciant omnes nos: Samuelem Wilks, Baronettum, Medicinæ Doctorem et Præsidentem Collegii Regalis Medicorum Londinensis, una cum consensu Sociorum ejusdem Collegii, auctoritate nobis a Domine Rege et Parliamente concessa, in Societatem nostras, honoris causa, cooptaise virum illustrissimum Albertum Edwardum, Walliæ Principem, Corombiæ Ducem, Nobilissimi Ordiris Periscelidis Equidem. In cujus rei fidem et testimonium Sigillum nostrum commune præsentibus apponi fecimus. Datum Londini in Collegio nostro die vicesimo nono mensis Julii, annoque Domini millesimo octingentesimo nonagesimo septimo.

Somewhat Belated.—

Our New York contemporary, the *Medical Record*, has for some time assumed to be the leading medical newspaper on this side of the Atlantic, consequently we are surprised to discover that even "Homer nods." We are led to these remarks by the fact the *Record* has just discovered that a paper entitled "Origin of Vertebrates" appeared in the columns of THE MEDICAL AGE from the pen of Stuart Jenkins—a paper published nearly a year ago.

We must give Brother Shrady credit, however, for reading his files, even though he is somewhat belated therein.

Sham Nucleins.—

Nucleins are proteid bodies the distinguishing characteristics of which are: Their comparatively large amount of phosphorus: Their insolubility in strong alcohol and dilute acids.

These facts, however, have not prevented the employment by the medical profession of alcoholic preparations said to contain nuclein and which must necessarily be inert.

Items and News.

Professor to Student.—

Called to a case of acute retroflexion, would you perform an abdominal section?
Would you suggest suprapubic lithotomy, or insist (like a fool) on performing colotomy?
Would you, for colic, give sugar of lead? Would you trephine for a pain in the head?
Would you, for abscess of tonsil, excise it? Having heard it suggested, how would you advise it?
Would you give iron in cases of stricture, and what is the dose you'd prescribe in a mixture?
Would you think it well to suggest "Homocea" to patient who suffers from bad gonorrhœa?
Is massage a suitable treatment for gleet? Or would you, for corns, remove both the feet?
Prescribe an emetic in bad urethritis, or give Keating's Powder in case of "phlebitis?"
Advise an "eye-opener" in cases of ptosis, or cut off a leg to relieve anchylosis?

—*English Exchange.*

Floral Monstrosities.—

Professor De Candolle, the French botanist, has given a new and original explanation of certain monstrosities in flowering plants. Some specimens were sent to him in which the flowers were borne on the upper and lower surface of the leaf. The explanation hitherto given of this phenomenon is that there has been an adhesion (or want of separation) between the flower-stalks and the adjacent leaves, so that they have grown together. De Candolle, however, is of the opinion that such inflorescences are real outgrowths from the leaves, and not axillary shoots growing and fusing with them. He regards such examples as proofs that botanical distinctions between stem and leaf are purely arbitrary.—*Western Druggist.*

The Keeley Cure.—

This exerts a harmful influence upon the human system as regards longevity. Carefully compiled statistics by life insurance companies show that the life of a Keeley-cure graduate is very materially shortened, even though the individual was not originally considered an inebriate, and in consequence several of the most prominent life insurance companies absolutely refuse to consider the application for a policy from any Keeley-cure graduate, no matter in how good condition the health might be.—*Fort Wayne Medical Journal.*

Acetone Alcohol.—

A New York dealer placed upon the market a highly refined methyl alcohol under the extremely misleading trade name of "acetone alcohol." This is unfortunate, as it may lead

to the belief the article is ordinary alcohol derived from acetone, similarly as the so-called acetone chloroform. Pure wood alcohol is very useful in its place, but may prove decidedly dangerous when used internally as a substitute for grain alcohol.—*Western Druggist.*

True!—

English Tourist (in the far North, miles from anywhere).—"Do you mean to say that you and your family live here all the winter? Why, what do you do when any of you are ill? You can never get a doctor!"

Scotch Shepherd.—"Nae, sir. We've just to dee a natural death!"—*Punch.*

Room in the Profession.—

While there may be ample room in the loft, the ground floor of medicine, they say, is uncomfortably jammed.—*Homœopathic Recorder.*

[Equally crowded is the cellar, where the charlatans do congregate!—ED.]

Naturally!—

It is intimated by a scientific M.D. that the descendants of a long line of bicyclers will take on a kangaroo shape—all hind legs.—*Exchange.*

[Better that than all cheek, as at present.—ED.]

Thyreoid for Fibroids.—

Thyreoid extract is beneficial in the metrorrhagia of fibroid tumors, and also in checking the growth of the tumors and even causing them to be reduced in size if not actually to disappear.—POLK.

"Authorities!"—

The greatest of these, the French Academy, greeted the proposals of steam power, gas lighting and electric telegraphing with "derisive laughter," yet that body is quite as much of an authority as ever.

Alas! Too True!—

The shirt-waist girl goes to her luncheon, eats ice cream, candy and pickles with impunity, and thus carries dismay into the ranks of dietetic science.—*Homœopathic Recorder.*

Modern Health Boards.—

"These are fast degenerating into mere machines for the germ crank to work out his peculiar and offensive theories at the public expense."—*Medical Councellor.*

Book Reviews.

TEXT-BOOK OF NERVOUS DISEASES. By Charles L. Dana, M.D. Cloth; 8vo. William Wood & Co., New York.

We are glad to note that a new (fourth) edition of this work has just been published. The part on Peripheral Neuroses is entirely rearranged, and new chapters have been added on Encephalitis, Multiple Sclerosis, Meningitis, and Traumatic Neuroses. The anatomical chapters have also been revised and in a great measure rewritten and brought into relation with modern views as to the neuronic architecture of the nervous system. The therapeutic part has been extended by additions to the appendix, giving technical details of the various accepted remedial measures of modern neurology. The new illustrations in colors and half-tone are especially commendable, and the book, though it has been slightly enlarged, is of a character that cannot but meet with the same universal approval as preceding editions. It presents modern neurology in a concise yet clear and accessible form.

THIRD ANNUAL REPORT OF THE AMERICAN ACADEMY OF RAILWAY SURGEONS. Edited by R. Harvey Reed, M.D. Cloth; 12mo; pp. 282. American Medical Association Press, Chicago.

Apart from the proceedings there is a very interesting list of papers. Two are devoted to Expert Testimony; seven are devoted to Fractures and Bone Trauma; four to Injuries of the Eye. Other papers are "First Aid in Railway Emergencies;" "Past and Present Obstacles to the Radical Cure of Hernia;" "Medico-Legal Aspect of Floating Kidney;" "The Delirium of Shock;" "Diseases of Railway Men Caused by Occupation;" "Burns and Scalds." There are portraits of four members of the Association, including the president, and illustrations of appliances for support of fractured knee, splint for fractured nose, and diseases of the knee-joint.

FOR HER LIFE. By Richard Henry Savage. Cloth; 12mo; pp. 448. Price, $1.00. Rand, McNally & Co., Chicago and New York.

This is a thrilling Russian tale dealing with Nihilists, Secret Police of Russia, and the plots and methods of the latter as well as of those who pose as the martyrs of liberty in far-off Muscovy. The heroine is a most beautiful Polish countess who has become entangled with a Nihilist, and whom the chief of the secret police is endeavoring to wile into his toils by false charges. Her protectors are her lover, a major in the famous Paul Regiment, a commander in the Russian Navy, and a Yankee lawyer. The plot takes one entirely across Russia, Siberia, and to the Pacific Coast of North America.

This is by far the best of Savage's numerous works.

DISEASES OF FEMALES AND CHILDREN AND THEIR HOMŒOPATHIC TREATMENT. By Walter Williamson, M.D. Cloth; 16mo; pp. 256. Price, $1.00. Boericke & Tafel, Philadelphia.

This is a very concise volume, intended to be an epitome of instructions concerning the diseases of females, the conduct to be observed during pregnancy, labor, and confinement, and also directions for the management of new-born infants in accordance with the principles of the homœopathic school.

The fact that the volume is in its fourth edition evidences that it has met with more than an ordinary measure of success.

A DAUGHTER OF JUDAS. By Richard Henry Savage. Paper; 16mo; pp. 304. Price, 25 cents. Rand, McNally & Co., Chicago and New York.

This is No. 9 of the Oriental Library, and in the usual style of the author. It deals largely with New York society and plots to obtain the wealth of a millionaire stock-broker and of his daughter. No hour can be more pleasantly spent than in perusal of this interesting bit of fiction.

HISTORY OF PAINTS, PIGMENTS, AND COLORS. By John McGovern. Paper; 24mo; pp. 72. Heath & Milligan Co., Chicago.

This little booklet enters exhaustively into the many points which go to make up a full knowledge of paints and colors. The publishers assure us that more than two thousand publications were required to be searched to furnish the information contained.

FOR ANOTHER'S SIN. By Bertha M. Clay. Paper; 16mo; pp. 352. Price, 25 cents. Rand, McNally & Co., Chicago and New York.

This is No. 261 of the Globe Library, and is in the author's well known style. It is an exceedingly interesting bit of fiction and will prove especially attractive to the fair sex.

MISS DEVEREUX OF THE MARIQUITA. By Richard Henry Savage. Paper; 16mo; pp. 482. Price, 25 cents. Rand, McNally & Co., Chicago and New York.

This is No. 11 of the Oriental Library, and in the peculiar style of the author. It deals with the early days of Nevada, miners and mining, gamblers and adventuresses.

THE LIVING AGE. Price, $6.00 per year. The Living Age Co., Boston.

This magazine, which has appeared with never-failing regularity for nearly two generations, reflects as faithfully as ever the age in which we live. It is composed of the best articles of the best periodicals, reproduced without abridgment.

The latest issues contain papers by the best known writers, experts in the subjects treated: "In the House of Commons Half a Century Ago," by Sir C. Gavan Duffy; "Scottish Literature," by Arthur J. Balfour; "A Reminiscence of Tennyson," by William Knight; "The Antiquity of Man," by Sir John Evans; "Contemporaneous Problems: The Colonial Policy of Europe and What That of Spain Should Be," from the Spanish of the late Senor A. Canovas del Castillo; "Europe's New Invalid," by John Foreman; "Old Fiction," by Augustine Birrell; "The Superstitions of Shakespeare's Greenwood," by George Morley; "France, Russia, and the England of the Jubilee," by Francis de Pressensé; "The New Sayings of Christ," by M. R. James; "A Trappist Monastery in Natal," by Carlyle Smythe; "Ethics and Science," by Julia Wedgwood; "The Works of Robert Louis Stevenson;" "Unpublished Letters of George Canning," etc., etc. In fiction, besides an occasional short story, there is at present running a story translated from the German of Paul Heyse for *The Living Age*, entitled "In Nature's Waggish Mood."

The publishers announce that to all *new* subscribers for the year 1898 the weekly numbers of 1897, issued after the receipt of their subscriptions, will be sent *free*.

THE CENTURY. Price, 35 cents; $4.00 per year. The Century Co., New York.

Theodore Roosevelt contributes a paper to the October number on "The Roll of Honor of the New York Police," being one of the series in this magazine on "Heroes of Peace." Mr. T. Cole, the engraver, gives his attention this month, in his "Old English Masters," to Sir Joshua Reynolds; the accompanying text is by John C. Van Dyke. Other articles are "The Art of Charles Keene," by Joseph Pennell; "The Flirting of Mr. Nickins," by Lucy S. Furman; "Marie Antoinette as Dauphine," by Anna L. Bicknell; "The Blood-red Blossom," by George E. Woodberry; "What is an Aurora?" by Alexander McAdie; "Wild Animals in a New England Game Park," by G. T. Ferris; "The Baby Corps," by Irving Bacheller: "The Heart of a Maid," by Louise H. Wall; "Letters of Doctor Holmes to a Classmate," edited by Mary Blake Morse. This number closes the volume and brings to an end the serials which have proved such successful features of the year, viz., "Hugh Wynne, Free Quaker," "Campaigning with Grant," "The Days of Jeanne d'Arc," and "Up the Matterhorn in a Boat." There are the usual departments.

INTELLIGENCE. Price, 10 cents; $1.00 per year. The Metaphysical Publishing Co., New York.

"A Nineteenth Century Musical Mystic"—The Secret of Wagner's Genius (I), by Albert Ross Parsons, is the opening paper in the August number of this magazine. Julius Erickson writes of "An Astrological Prediction on President McKinley's Administration;" Joseph L. Hasbroucke of "Life and Health in Metaphysics;" Paul Avenel of "Mental Illumination;" "Intelligence, Thought, and 'Being'" (XXIV) is by C. H. A. Bjerregaard; "Elements of Character Reading," by A. L. Stone; "The Real and the Ideal," by William H. Francis; "The Hermit of the Sierras," by Lydia Bell: "Thought Work," by Barnetta Brown.

In the September number Henry Frank writes of "The Dogma of the Atonement;" Frank H. Sprague of "Two Views of Life;" "A Nineteenth Century Musical Mystic"—The Secret of Wagner's

Genius — by Albert Ross Parsons, is concluded; "Inductive Astrology" (I) is by John Hazelrigg; "The Health of the People," by H. Louise Burpee; "Philosophy of the Divine Man" (III), by Hudor Genone; "Self-Knowledge," by L. T. R. Akin.

Birds. Price, 15 cents; $1.50 per year. Nature Study Publishing Co., Chicago.

The illustrations in the August issue are: "Osprey;" "The Sora Rail;" "Kentucky Warbler;" "Red-Breasted Merganser;" "Yellow Legs;" "Skylark;" "Wilson's Phalarope;" "Evening Grosbeak;" "Turkey Vulture;" "Gambel's Partridge."

There is a very complete descriptive text accompanying each photograph, and likewise this number furnishes an index to Volume I.

One thing we regret to see is that the index is continued onto the cover, necessitating the binding of the latter in Volume I. We hope the publishers will issue a new index which will be more suitable.

The September issue, No. 3 of Volume II, is before us. C. C. Marble writes of "Bird Song." There are ten illustrations, as follows: "Yellow Warbler;" "Hermit Thrush;" "Song Sparrow;" "Yellow-Billed Cuckoo;" "Ruby-Throated Humming-Bird;" "House Wren;" "Phœbe;" "Ruby-Crowned Kinglet;" "Mourning Dove;" "White-Breasted Nuthatch," with a description of each, how it builds its nest, material used, color and number of eggs, etc.

The Journal of Comparative Neurology. Price, $1.00; $3.50 per year. The Comparative Neurologist, Granville, Ohio.

The second number of the seventh volume of this quarterly (September, 1897) is before us and as interesting as the issues always are. "Lectures on the Sympathetic Nervous System" are by G. Carl Hubert, M.D.; "Preliminary Notice Upon the Cytology of the Brains of Some Amphibians" (1. Necturus) is by Smith E. Jelliffe, M.D. Both papers are extremely interesting and illustrated with plates. The Literary Notices, etc., are very extensive, and among other things deal with the Development of the Fifth Nerve in Man; Degenerated Changes in the Brain of the Non-Insane; Effect of Section of the Ninth Nerve upon Taste Buds; Nerve Termini in the Ear; The Homologies of the Hypoglossus Nerve in Lower Vertebrates; The Physiology of Visual Sensation; and The Nervous System of Cestodes. No neurologist, general or comparative, can afford to be without this quarterly.

The Cosmopolitan. Price, 10 cents; $1.00 per year. The Cosmopolitan Publishing Co., Irvington, New York.

The October number offers, first, an illustrated article on the Spanish rule in the Philippines, which is prepared by D. C. Worcester and Frank S. Bourus, and exemplifies the beauties of Spanish rule. Grant Allen contributes his seventh paper on modern college education, in which he informs us how utterly superfluous Latin and Greek are from his point of view; J. B. McPherson writes of the field of Gettysburg, where for three years the fate of a nation hung in the balance; H. H. Boyeson describes Norway's great glaciers; Julian Hawthorne, visiting India as this magazine's special commissioner, writes of England's rule in that country; and Julien Gordon offers a story, illustrated by B. West Clinedinst. Edgar Faucett, who recently made Aaron Burr the hero of one of his novels, presents a sketch of him as "A Romantic Wrong doer" in this number.

The American Monthly Review of Reviews. Price, 25 cents; $2 50 per year. The Review of Reviews Co., New York.

The October issue has several articles of unusual interest to women readers. Miss Frances Willard tells the story of the "World's W. C. T. U. Movement;" Mrs. Ellen M. Henrotin, president of the General Federation of Women's Clubs, outlines the benefits of those organizations; Mrs. Sheldon Amos, of England, writes of a London Women's Club; and Mary Taylor Blauvelt contributes an enlightening article on the opportunities for women at the English universities. In "The Progress of the World" is discussed "Real Cause of the Trouble at Hazleton," "A Lesson in Nomination Methods," "Importance of the First Metropolitan Mayor," "Present Sources of Our Unskilled Labor," "Some Faults in Our National Character." There are also articles on Aluminum, its manufacture, how it is made, its uses, etc.

St. Nicholas. Price, 25 cents; $3.00 per year. The Century Co., New York.

The special article for the current month is "The Fire Patrol," by C. T. Hill. The three serials, "Miss Nina Barlow," "Master Skylark," and "The Last Three Soldiers," are concluded in this issue, which is the last of the current volume. Margaret Jackson writes of "The Two Victories;" "Helen Keller and Tommy Stringer" is by William T. Ellis; "The Escort to the Color," by Lieutenant B. W. Atkinson, U. S. A; "A Magician for One Day," by Tudor Jenks; "How an Elf Set up Housekeeping," by Anna Cleve; "A Scientific Toy Bridge," by E. J. Prindle; "Deer-Mice as Pets," by G. Rafael O'Reilly; "Another Dandy," by Laurence Hutton; "The Big Booboo and the Little Booboo," by Gertrude Smith; "The Key to the Box," by Katharine Pyle. There are the usual poetry and departments.

The Midland Monthly. Price, 15 cents; $1.50 per year. Johnson Brigham, Des Moines, Iowa.

In the October number Florence Kerr-Hillhouse gives "Sketches of Egyptian Life;" Harry Lesan writes of "Anti-Polygamy Mormonism;" "Grant's Life in the West and His Mississippi Valley Campaigns," by John W. Emerson, is continued; "Up the Mississippi in 1835" (Old Letters) is by A. B. Campbell; "Bird Life in the Grand Canyon," by H. L. Graham; "Around About Alaska's Metropolis," by Mrs. Frederick Schwatka; "North Dakoka Federation of Women's Clubs," by Mrs. C. E. Conant; "A Memory of 1840," by T. S. Parvin. In the fiction department Willis Mills writes of "A Social Convulsion;" "Minnie Baba and the Tiger Prince" is by Ira J. Stoddard, Jr.; "The Missing Passenger," by J. J. Gray; "A Fair Episode," by E. M. Acuff. There are the usual departments.

Architecture and Building Price, 10 cents; $4.00 per year. William T. Comstock, New York.

The October 2d issue contains: "Architects Enjoin the Harrisburg Capitol Commission;" "The Trade Schools and the Employers' Associa-

tions;" "Editorial Notes and Comments;" "The Beginning of Gothic Architecture" (III); "Corporate Seal Competition for the American Forestry Association;" "Onyx Beds in Kentucky;" "The New Recreation Pier;" "Archæology as a Science;" "Cape Cod Sand Storms;" "The Sand Blast Work on the Viaduct;" "Classes of the West Side Branch, Y. M. C. A.;" "The Academy of Design Competition;" "The Millionaires' Flower Show;" "Societies;" "Correspondence;" "American Competition in England;" "What is Hard Wood;" "Personal;" "Industrial Progress."

THE CANADIAN MAGAZINE. Price, 25 cents; $2.50 per year. Ontario Publishing Co., Toronto.

The principal papers in the October issue are: "Days of Rest of Prehistoric Man," by R. G. Haliburton; "The Making of a Dollar Bill," by Alexander Colin Campbell; "Premiers of Prince Edward Island Since Confederation," by W. L. Cotton; "The Universities of Nova Scotia," by Mina A. Reade; "A Glimpse of Norway," by Winnifred Wilton; "The Royal Society of Canada, its History and Work," by J. G. Bourinot; "My Contemporaries in Fiction," by David Christie Murray; "American Trade Relations," by John Charlton; "Hagar of the Pawnshop" (III), by Fergus Hume; "Between the Old and the New," by R. F. Dixon; "A Dominion School System," by Francis A. Dresser.

LIPPINCOTT'S MAGAZINE. Price, 25 cents; $3.00 per year. The J. B. Lippincott Co., Philadelphia.

The complete novel in the October issue is "A Knight of Philadelphia," by Joseph A. Altsheler; "Political Tricks and Tribulations" is by Allan Hendricks; "The Under Side of New Orleans," by Frances Albert Doughty; "Mrs. Meriwether's Wedding," by Clarinda P. Lamar; "Bad Story-Telling," by Frederick M. Bird; "The Rise and Fall of Athletic Pastimes," by Agnes Carr Sage; "The Strike at Barton's," by William T. Nichols; "Historic Animals," by F. G. De Fontaine; "A Buzzard's Banquet," by Dallas Lore Sharp; "Some Literary Shrines of Manhattan," by Theodore F. Wolfe. The poetry of the number is by Clarence Urmy, Charles G. D. Roberts, and Grace F. Pennypacker.

MIND. Price, 20 cents; $2.00 per year. The Alliance Publishing Company, New York.

The October issue, which is Volume I, No. 1, of this magazine, is before us, the contents of which are: "Psychology in Literature," by Julian Hawthorne; "Mind in Medicine," by Alexander Wilder, M.D; "New York a Century Hence," by Countess Ella Norraikow; "Mental and Physical Correspondences" (I), by Charles Brodie Patterson; "Vibratory Affinity," by Charles B. Newcomb; "Automatic Writing," by B. F. Underwood; "Vistas of Truth," by E. A. Sheldon; "Metaphysical Terminology," by Doctor Ca-sius Macdonald; "Wanted—A Novel," by Rosa G. Abbott; "Mind" (poem), by Josephine H. Olcott; "Editorial Department."

GODEY'S MAGAZINE. Price, 10 cents; $1.00 per year. The Godey Company, New York.

The October number is one of the strongest and brightest of the year. Its frontispiece is a superb art conception of the head of "Lucifer," drawn by H. W. Phillips. This art contribution is accompanied by an appropriate selection from "Paradise Lost." Under the caption of "Four Months in Paradise" John R. Musick writes of the Hawaiian Islands and people. "The Coming Dramatic Season" is by Beaumont Fletcher. Helen M. North tells the story of "The Abbey of Valle Crucis," one of the loveliest ruins in England. "Old Nantucket" is in a vein that cannot fail to interest. Nancy M. Waddle writes of "A Day with the Marsh Princess." The fiction of this issue comprises four different tales, no two of them of like character.

THE MONIST. Price, 50 cents; $2.00 per year. The Open Court Publishing Co., Chicago.

This is No. 1 of Volume VIII (October) of this quarterly, the contents of which are: "The Realities of Experience," by C. Lloyd Morgan; "On Isolation in Organic Evolution" (A Posthumous Essay), by the late George J. Romanes; "Man as a Member of Society" (Part II), by P. Topinard; "On Sensations of Orientation," by Ernst Mach; "On Species-Formation, or the Segregation of the Chain of Living Organisms into Species," by Th. Eimer; "Professor F. Max Müller's Theory of the Self," by Paul Carus; "Literary Correspondence" (France), by Lucien Arréat; "Criticisms and Discussions," by C. L. Morgan; "Book Reviews."

SCRIBNER'S MAGAZINE. Price, 25 cents; $3.00 a year. Charles Scribner's Sons, New York.

In the October number Henry Norman writes of "The Wreck of Greece;" "The Workers" is by Walter A. Wyckoff; "The Frigate-Ghost," by Helen G. Cone; "The Business of a Newspaper," by J. Lincoln Steffens; "The Man with the Bacon Rind," by William H. Shelton; "Cecilia Beaux," by William Walton; "The Unquiet Sex," by Helen W. Moody; "The Durket Sperret" (VI–XII), by Sarah Barnwell Elliott; "The Life of a College Professor," by Bliss Perry. The illustrations are by Henry Norman, E. Potthast, A. B. Frost, Carlton T. Chapman, and W. R. Leigh. There are the usual poetry and departments.

AMERICAN KITCHEN MAGAZINE. Price, 10 cents; $1.00 per year. Home Science Publishing Co., Boston.

The chief articles in the October issue are: "Wanted—Intelligent Cooks," by Lily A. Toomy; "The Market at Knoxville, Tennessee," by Julia Davis Chandler; "Lessons in Progressive Housework," by Emily Huntington; "Apple Jellies," by Alanson S. Grant; "Cooking for Invalids" and "Individual Recipes," by Helen M. Spring and Catherine J. Coolidge; "An Autumn Entertainment," by Anna Barrows; "From Day to Day," by Mrs. Lincoln; "October Dinners." There are the usual departments.

THE PHRENOLOGICAL JOURNAL. Price, 10 cents; $1.00 per year. Fowler & Wells Co., New York.

In the October issue Jessie Fowler writes of "Sir John Evans;" Miss S. Dexter of "Education;" Alvan G. Clark of "People of Note;" B. V. Lane of "The Æsthetic Force of Amativeness." Anonymous articles are: "The Alaska Natives;" "Physiognomy;" "Snap Shots at the Tennessee Exposition;" "Brain, Mind, Thought, Soul—What?" There are the usual departments.

Therapeutic Brevities.

The Giving of Hypodermatic Injections.—The value of the hypodermatic injection, both for the relief of pain and to secure prompt or certain drug effects other than for the alleviation of pain, is generally granted. But there is a wide range of difference in the mode of giving one of these injections, varying from the method that is very painful to the one that does not even make the average patient wince. Why the painful method should be so persistently practised when the other is even easier of performance is somewhat difficult of explanation.

Quite a painful method consists in pushing the needle very slowly into the skin of the front of the forearm in an upward direction; it is thus made to injure a succession of sensitive nerve filaments with corresponding continued suffering. Much pain would be saved by pushing the needle downward toward the wrist, when the advancing point would only be traversing areas already affected by the initial entrance of the needle. Better still, however, is the pushing of the needle directly through the skin at right angles to its surface, and into the underlying soft structures, usually muscle. If this be done quickly, so much the better. Again, the back of the forearm is less sensitive than its front, and the back of the upper arm still less so.

We therefore recommend the following method: Pick up the skin and fascia of the back of the upper arm, and with it either a portion of the triceps or the deltoid muscle, according to the height at which the injection is to be made, and hold it firmly, with the skin moderately tense. Rest the ulnar side of the hand holding the syringe against a convenient part of the patient's arm, with the needle resting upon or close to the skin, and perpendicular to it. With a sudden motion carry it very quickly through the skin for half an inch or more so as to reach the underlying muscle or fat, according as the patient is thin or fat. This is never more painful than a mosquito bite, and often not as marked—in fact, sometimes it is not noticed.

The fluid should be injected so slowly as not to cause discomfort. Then the needle is withdrawn with a very quick movement, and the finger or thumb immediately placed over its orifice of exit, and used for about a dozen deep massage movements. After this the pressure is removed and the operation is completed.

Injections so made are only slightly perceptible, and never have any bad after-effects. Seventeen years' use of this method without a single abscess or serious soreness argues much in its favor.—*Atlantic Medical Weekly.*

[Still better is the method whereby the heel of the piston is held in the palm of the hand, the fingers grasping the barrel and needle, and the introduction of the latter and the fluid made simultaneously. A little practise will secure this "knack." But it is all nonsense about the necessity of entering the muscle or a solid fat layer; the subcutaneous cellular tissue is the proper place for the injection.—Ed.]

Vesication Produced by Cocaine.—Broeckaert recently observed a remarkable vesicant action due to application of cocaine solution. He had been consulted by an army officer on account of a slight obstruction caused by a certain degree of hypertrophy of the inferior turbinated bone. In order to anæsthetize the mucous membrane he was about to apply cocaine when the patient interposed and declared that it would produce dangerous effects; that once an application had been made to the skin at the seat of a boil, and in the course of a few hours an eruption occurred which he could only compare to the effect of a fly-blister. Broeckaert could scarcely credit the statement, but let fall a drop of ten-per-cent. solution upon the man's forearm. Two days later the man returned and surprised him by showing an eruption of small vesicles, the extent and form of which corresponded exactly to the spot upon which the cocaine had been dropped. To dissipate all doubt he tried a new and decisive experiment. The patient's eyes being closed, he applied to one arm a drop of a freshly prepared cocaine solution and to the other a drop of distilled water, the patient believing that both were solutions of cocaine differing only in strength. The experiment corroborated the patient's former statement; the cocaine solution alone caused vesication. The effect in this case was in many respects comparable to that of cantharidal plaster. At the end of a certain time the vesicles dried up, but they left behind them a slightly pigmented cicatrix, proving that the irritation had been comparatively strong and had even led to the destruction of some extravasated red corpuscles. Curiously enough, corrosive sublimate, carbolic acid, iodoform, and other more or less irritant substances had no such effect upon this individual. The man was robust and in good

general health, but had previously had some arthritic manifestations.—*Revue Internationale de Rhinologie.*

Removal of Superfluous Hair.—The presence of well-marked hair upon the face of a woman is a deformity that causes its owner much chagrin and mortification, but the work of removal is tedious and a certain proportion of it has to be gone over again a second and even a third time. The most noticeable hairs should always be attacked first. Removal is effected by cathode application to the root within its follicle. For this purpose a very fine flexible steel needle, securely fastened in a plain insulated holder, is passed down along the hair to be removed into its follicle. There should be neither resistance nor pain; if there be, the edge of the follicle has been struck, and the attempt to introduce the needle must be repeated. The offending hair is held by means of a small pair of forceps, but it must not be pulled at any time. The circuit is completed by the patient placing her hand upon the wetted sponge anode. The current must be imperceptible, and within twenty or thirty seconds of its passage froth appears about the needle, and a short while thereafter the hair pops out without traction on the forceps. The patient then removes the hand from the sponge and another hair is selected for the same treatment. Patients soon become tolerant of the work, though the physician grows increasingly tired. From twenty to thirty hairs may be removed at a single sitting, and never more than fifty, as it becomes too trying, particularly upon the eyes. A magnifying glass may be used if desired, the most practicable being the jewelers' glass because held by the eye unassisted.—*Medical Times and Register.*

Pain and its Therapeusis. — Lactophenin is destined to supersede largely the entire array of analgesics proper, owing to its non-toxic peculiarities and the feeling of comfort described by many physicians as following its use. It affords the best results with the least ill effects; its range of incompatibility is less than other synthetic compounds; it may be combined with caffeine, quinine, and salicylic acid. The minimum dose of five to ten grains may be increased until a daily maximum of forty-five grains has been reached. It is but slightly soluble in water, although acting promptly, so that it can be given dry and washed down with a drink of water. A dose of fifteen grains usually acts as a feeble hypnotic. There are no untoward symptoms following its use, and contrary to the experience with some synthetic drugs, the pulse becomes fuller and stronger under its use. The range of application is extensive, and the finding of other physicians as to its superior analgesic effects, its safety and promptness of action, places its value beyond *question.*—CLEVENGER.

Delirium Tremens.—I was called to see a lewd woman, who had been on a drunk for eight days, and just before she had the usual reptile hallucinations. I found her very restless, moving incessantly, and by force she was made to stay in bed. I sent to a neighboring drug store for a drachm of chloride of ammonium, and at once gave her half a drachm in four ounces of water, and had her drink it in one or two gulps. In fifteen minutes she was quieter, and in fifteen minutes more I gave her the other half drachm. In a short time she was asleep and slept for six hours. She awoke feeling much better and had no more trouble. I should not hesitate to give a drachm and repeat the dose in half an hour if the patient was not better.—GOSSETT, in *New York Medical Journal.*

[We would suggest the foregoing be taken *cum grano.* Ammonium chloride is not necessarily dangerous, but in large doses it sometimes induces powerful and dangerous cardiac depression.—ED.]

Ferratin in Tuberculosis.—In those cases where tuberculosis has been successfully treated by therapeutic methods, iron has been the most valuable remedy. As every one knows, the preparations of iron are very numerous, some of them positively harmful, others inert and useless, while a few are capable of being readily assimilated. Of this kind, ferratin is one of the new remedies recommended by the committee of revision for adoption into the new fifth edition of the Russian Pharmacopœia. This is an organic iron compound of albumen and tartrate of iron, forming a definite iron albuminic acid; contains seven per cent. of iron; is readily absorbable; does not constipate; and has no untoward effects. On the testimony of its discoverer and others, it is identical with the natural ferruginous element of food, absorbed in the system and stored in the liver, and other organs, as a reserve iron for blood formation. —PARKER, in *Journal of the American Medical Association.*

Puerperal Sepsis. — Suspected infection should be confirmed when possible by bacteriological examination of vaginal secretions,

and every means of differentiating from other affections resorted to, that they may be treated either by medicine or by surgery.

Irrigation and antiseptics destroy the nutrition of the parts when continued and, furnishing increased moisture, improve the field for the development of micro-organisms, aside from the danger of death resulting from the antiseptic used.

The vagina can be kept comparatively dry by absorbent dressing, removing culture media and arresting the development of germs and infection until the abraded parts have healed.—MILLER, in *American Journal of Obstetrics.*

The Detested Ricinus.—"There is," says a horticulturist, "hardly an instance in natural history of a plant so universally detested by the animal world as the castor-oil plant. No sort of a bird, beast or creeping thing will touch one. It seems to be a rank poison to all the animal world; even a goat will starve before biting off a leaf, and a horse will sniff at it and turn up his upper lip as if it had the most detestable odor on the face of the earth. Army worms and the locust will pass it by, though they may eat every other green thing in sight, and there is no surer way to drive moles away from a lawn than to plant a few castor beans here and there. Even the tobacco worm will refuse to be fed on its leaves-—*Western Druggist.*

Parasitic Baldness.—Sabouraud recommends two ointments. The first, which is cheap, is made according to the following formula:

℞ Turpeth mineral, 45 grains.
Essence of lemon, 20 drops.
Vaselin, 900 grains.

The second is very expensive, but it is cheaper to regain one's hair than to buy a wig.

℞ Pilocarpine, 4 parts.
Quinine, 4 parts.
Precipitated sulphur, 10 parts.
Balsam of Peru, 20 parts.
Beef marrow, 100 parts.

—*Concours Médical.*

Sulphate of Sodium a Hæmostatic.—Small doses of sulphate of sodium (two grains every hour) are of great value in certain cases of capillary hæmorrhage for the purpose of arresting the flow of blood. This method is of value for the control of graver hæmorrhages. Experiments upon animals seem to show, however, that the remedy is only of value if given by the stomach or injected into the veins; under these circumstances it distinctly increases the coagulability of the blood, while on the other hand, it is a noteworthy fact its administration subcutaneously does not produce the same result.—*Revue Médicale de la Suisse Romande.*

Drunk on Kerosene.—A chemist's assistant was charged with having been drunk. He was found by the police close upon midnight in a dazed condition, and at the station declared he had drunk a quantity of kerosene oil. Finding such was the case the officers caused strong hot coffee to be administered, and after a time the man came around. Inquiries revealed the fact he had been discharged from his situation. He had been indulging freely in drink for a week, and after his money was gone he went to his lodgings, emptied a lamp, and drank the oil—over a pint of the nasty stuff.—*Chemist and Druggist.*

"C. P." Chemicals.—A few years ago, at a Missouri Pharmaceutical Association meeting, a paper was read which showed that some of the C. P. chemicals failed to be chemically pure. A member of the Pennsylvania Association has continued the investigation with the same results. In one case he found sulphuric acid listed "C. P." and also as "C. P., free from arsenic." This reminds us of the grades of table mustard sold by grocers as "pure," "strictly pure," and "absolutely pure." We register our plea for the retention of a definite use for "C. P."—*Meyers Brothers Druggist.*

Blindness from Eucaine.—A case of temporary amblyopia occurred from an application of eucaine, which teaches this substance has its dangers. Preparatory to cauterizing a hypertrophy of the right inferior turbinated bone, a five-per-cent. solution of eucaine was applied. Immediately after the operation the patient noticed that his sight was growing dim, and a few minutes later it entirely left him. The pulse was rapid; he was talkative, his speech being a little incoherent. The amblyopia disappeared at the end of four hours, and recovery was permanent.—SHASTID.

Worms in Dogs.—Areca nut is very generally employed, but varies much in activity, probably from the varying amount of contained alkaloids. The doses frequently given are far too large, and with good active powder have been known to produce serious

illness and even death. A grain for every pound the animal weighs will be safe, but the powder should be freshly ground. Areca nut is one of the best of vermifuges, and may be usefully combined with a grain or two grains of santonin, according to the size of the dog.—*Veterinary Journal.*

Removal of Ossicles.—This is not a successful operation. Pullitzer performs it frequently in Vienna, but without benefit. In catarrh of the middle ear there is an anchylosis between the stapedius and the post-tympanic membrane; the ossicles are also pressed together and cannot oscillate. The theory of the operation is that the stapedius, if freed from the pressure of the other bones, may vibrate, but it is not successful practically. In chronic suppurative cases the operation is indicated often.—STRICKER, before the Society for Medical Research.

Sciatica.—Doctor Benjamin Ward Richardson was wont to highly recommend the following pill:

℞ Opium, 15 grains.
Ipecac, 15 grains.
Sodium salicylate, 110 grains.
Fluid extract cascara sagrada, sufficient quantity.

Make twenty such. One to three a day.

—*Indian Lancet.*

Facial Erysipelas.—

Carbolic acid, 1 ounce.
Tincture iodine, 1 ounce.
Alcohol, 1 ounce.
Oil turpentine, 2 ounces.
Glycerin, 3 ounces.

The lesions to be painted with this every two hours, and covered with aseptic gauze. —*Le Presse Médicale.*

External Hæmorrhoids.—

Fluid extract witch hazel, 1 ounce.
Fluid extract golden seal, 4 drachms.
Compound tincture benzoin, 4 drachms.
Tincture belladonna, 1 drachm.
Carbolized olive oil (5-per-cent. carbolic acid), sufficient to make three ounces.

Apply often.

—*Medical and Surgical Reporter.*

Junket.—Add to one or two pints of fresh milk previously heated to about 100° F., or so that it can be comfortably taken into the mouth, one grain of rennin dissolved in about one tablespoonful of water; mix thoroughly and allow to stand for an hour or two. When the firm curd is formed, add sugar and grated nutmeg to suit the taste, and serve cold.—*Therapeutic Notes.*

Chronic Rheumatism.—

Potassium iodide, 3 drachms.
Wine of colchicum, 2 ounces.
Paregoric, 2 ounces.
Tincture stramonium, 6 drachms.
Tincture cimicifuga, 3 ounces.

A teaspoonful thrice daily.

—*Medical Record.*

Hæmaturia.—Tincture of guaiac is a valuable remedy as a hæmostatic in hæmaturia, regardless of its origin, and was in great favor with Doctor J. N. Upshur. It is only fair also to call attention to the fact that hæmaturia sometimes ceases spontaneously, with as little apparent reason therefor as for its appearance.—LEVY, in *Medical Register.*

Vitellin Crême.—Bernegau recommends a new ointment base of equal parts of preserved egg yolk, benzoinated olive oil, and purified wool-fat. Perfumed with a little oil of rose or other agreeable substance it forms a fine toilet cream, on account of the softening effect it has upon the skin.—*Pharmaceutische Centralhalle.*

Gargle for Follicular Tonsillitis.—

Beechwood creosote, 8 drops.
Tincture myrrh, 2 ounces.
Glycerin, 2 ounces.
Water, 4 ounces.

—LEVY, in *Journal de Médecine de Paris.*

To Waterproof Walls.—First wash over with a coat of size, then go over this with strong soft soap and water. Next give a good coating of warm solution of alum, one pound to a gallon of water, and another wash of soap.—*Exchange.*

Gastro-Intestinal Catarrh.—In a colored girl of twenty this condition was relieved by the administration every three hours of seven and a half grains each of bismuth salicylate and aromatic powder.—*Philadelphia Polyclinic.*

Coffee in Childhood.—Coffee is an excellent heart stimulant in nearly all grave diseases of infancy.—*Medical Summary.*

Medical Progress.

IMMORALITY OF THE ANTI-VIVISECTION MOVEMENT.—Compassion with the suffering is a virtue; indeed it is that virtue which in itself constitutes humaneness, and which, wherever absent, changes a man into a brute, a wild beast of prey. Let us therefore by all means foster this gentlest of all virtues, which is the main jewel in the crowns of the two greatest religious leaders of the world—Jesus the Nazarene, and Gautama the Shakyamuni. But compassion should not be allowed to grow rank; compassion is a sentiment, and he who yields to sentiments without subjecting their exercise to criticism and discrimination ceases to be a man of moral responsibility and degenerates into a creature of instinct. Compassion as a blind instinct is unquestionably a nobler fault than wrath, but as a passion it is a fault, it is sentimentalism, and its influence can become the more baneful the less its deficiencies are anticipated. Thus an untruth in the mouth of the erring who honestly believe it to be a truth may be more dangerous than an ethical falsehood pronounced by a liar.

The anti-vivisection movement, as it is carried on, is in this sense guilty of immorality, and we deem it our duty to state our views of the subject openly and frankly. We do not doubt that the anti-vivisectionists are noble men and women ensouled with the noblest of all virtues, compassion for the suffering, but they lack upon the whole the most essential of all virtues, which is thought, discrimination, discretion, consideration of consequences, a surveying of the situation, and a weighing of the implications of the question as well as the results to which it leads.

Not to be misunderstood, the writer of this article states at once that he sanctions all those aspirations which tend to alleviate suffering of all kinds, in man and in animals, not excluding even the insects and the vermin which molest our life. He would condemn all contrivances and traps which involve unnecessary pain or produce suffering; but he would not for that reason demand that we should not resist those creatures, be they small or great, that are pestiferous or obnoxious. There is no merit in sparing the life either of a tiger or a louse; but it is a vice to take delight in torturing a wild beast caught, and also in prolonging the death struggle of a fly. It is our moral duty to resist evil, but we should not resist evil with evil. Let us combat evil and all the creatures representing evil in an honest and square fight, but having conquered them, let us not delight in their destruction, for even the meanest and most wretched creatures deserve our compassion; they are the products of circumstances and cannot help being such as they are. Being evil they deserve destruction, but he who finds pleasure in serving as their executioner becomes vicious in exactly the same degree that he yields to the passion of hatred and vindictiveness.

Mark well that whenever a murderer is condemned to die, the law must condemn him and not the judge. The judge only pronounces the judgment, and the executioner is an instrument of the law, not a murderer. A judge who hates the criminal is in his heart guilty of an offense similar to that for which the criminal is condemned. A true judge has a sorrowful heart, and great is his responsibility.

The two greatest religious leaders of mankind, Christ and Buddha, have taught us to have compassion, but neither the one nor the other prescribed to avoid once and for all the infliction of any suffering. On the contrary, they taught that suffering is unavoidable. Buddha did not say that salvation is obtained by yielding unreservedly to the sentiment of compassion; he taught salvation by enlightenment. The bodhi, or enlightenment, is higher even than compassion, which implies that the compassion which we must exercise towards all suffering beings is subject to the discrimination afforded by the light of the bodhi. And Christ's mission is mainly a lesson of sacrifice, which means that salvation is obtained through suffering. There is no sentimentalism in either case. . . .

Now we ought to bear in mind that the moral man should never yield without previous deliberation to a sentiment or passion of any kind, not even to the gentlest and noblest, such as charity, compassion, love. Be full of charity, compassion, and love, but do not yield at once to every gentle motion of your heart, for your charity may be misplaced and your love may do more harm than good.

A noble zeal for truth was the original motive that begot the Inquisition; and a genuinely charitable spirit has pampered pauperism in Italy and other good Christian countries.

Therefore we must beware of yielding to sentiment, for every kind of yielding to sentiment is self-indulgence and will be productive of good by haphazard only in the same way that an animal may perform a moral deed if his disposition at a certain moment happens to be excited in the right way.

The anti-vivisection movement we cannot help regarding as such thoughtless yielding to sentiment. The sentiment is noble and evinces a gentle disposition of the heart, but whether it is moral, whether it is right, whether it leads mankind upward, is another question; and it appears to us that it cannot stand a careful weighing of all the *pros* and *cons*. Before the tribunal of ethics it stands condemned as much as all those other sentimental aspirations—indiscriminate almsgiving, the burning of the bodies of heretics for the sake of saving their souls, and showing mercy to the tiger because he ought to have a chance of reforming and might learn to eat cabbage and grass like a lamb.

This life is a struggle, and only the courageous will conquer. Courageous is he who does not fear to leave his body on the battlefield in order that his aspirations, his cause, his soul, may be victorious. But shall we be courageous only so far as our own individuality is concerned? Must not the leader in battle have courage for the whole army? Indeed he must. Victory is gained only by sacrifices, by the wounds of the gallant, by the death of the brave.

Count Moltke had his own sons in the ranks of the German army, and he was a man of the gentlest disposition, kind, compassionate, and taking pity even upon the sufferings of a dog. Yet for a great purpose he was determined to make any sacrifice that was necessary to achieve it, and he said that "a whole regiment of soldiers had fulfilled its purpose if at a critical moment they were all slaughtered for the sake of delaying the enemy ten minutes."

As to vivisection, we all know that it is not a pleasant duty of the physiologist, but it is an indispensable task that must be done for the sake of investigation. It falls within the same category with all sacrifices. Should science neglect to search for light in this most important domain—the domain of life—its representatives would be guilty of a gross neglect of duty. They would be like generals who would retreat before the enemy because the enemy's bullets endanger the lives of their soldiers. They would be like an officer in the fire department who, inspired by the idea of not causing pain to anybody, would recall his men from the burning building when they ought to rescue its inmates, because the firemen might blister their hands.

Vivisection may truly have, and frequently will have, the tendency of blunting the sentiments of the vivisector; but so does dissection. Shall we surrender dissection as an obligatory part of medical instruction lest the moral sense of the student be shocked? There are a few quack schools of medicine in this country which undertake to educate physicians, but their degrees should not be recognized, for they leave their graduates ignorant on one, perhaps on several, most important subjects. It is true enough that the human body in its wretched nakedness is subjected on the dissection table to most undignified treatment, which is liable to make the student vulgar and rude; but we cannot for that reason abandon dissection. The right thing to do is to teach the student the moral aspect of dissection and put him on his guard against the demoralizing influence of the dissection table. Do not cut him off from one of the best sources of information, but strengthen his moral nerve that he can bear the view of the Medusa without having his heart petrified by the sight of her terribly ugly features.

The anti-vivisection movement might be excusable if there were any valid arguments to prove that vivisection is useless. But the very opposite is the case. Innumerable discoveries of the most beneficent kind have been made through experiments on animals.

An anti-vivisectionist writes that he would rather die than purchase the prolongation of his life with the sacrifice of an innocent animal. That sentiment seems noble and generous. But should we not be ready to kill a million rabbits if we can thereby save the life of one child attacked with diphtheria? Now, the question is not one child against a million rabbits, but many millions of children of all the generations to come against a few hundred rabbits; and consider that not man alone, but the whole animal creation too, is the gainer by every progress of science.

The truth is that all the great scientists who are famous as clever vivisectors are as considerate as possible and avoid all unnecessary suffering. It is of course not exactly impossible that there are among the minor lights of science men ruthless enough to delight in the cruelty of their work, but it is very improbable. I believe that it is painful to vivisectors to be reminded of the fact that their subject is a living being; but whenever they think of it, they cannot help being touched by a sentiment of compassion.

Every compassion is a pain. While the anti-vivisectionist weakly indulges in his sentiment and thoughtlessly yields to the impulse of removing it, the investigator knows that the victim is sacrificed for a great purpose, and he can say to the rabbit on the table before him: "Blessed art thou, poor creature; thou art distinguished among thy comrades and glorious is the destiny for

which thou hast been chosen. While most other animals die of direful diseases, frequently under terrible pains, thou shalt give thy life for science; for the sake of revealing the mysteries of existence and for the purpose of giving us instruction as to how some of the ills that flesh is heir to may be cured. Blessed art thou; for thy death helps to build up life, and the preservation of the lives of many noble men and women will in part be due to thee. In them and with them thou wilt gain an immortality of a noble kind, which in the same way is otherwise not granted to the brute creation."

There is a great field for the humane societies, and they can do a noble work by elevating mankind and refining its sentiments, and also by protecting the dumb creation against the cruelty of savage masters. We are with them in all these worthy endeavors with heart and soul. In addition they may set their face against any kind of vivisection performed by those not called upon, but when they begin to meddle with science and forbid the physiologist to investigate life in the living animal, it is time to pronounce the *quousque*.

Vivisection, if strictly kept within the limits of its important purpose, is a moral obligation; and he who would hinder the physiologist in the performance of his duties makes himself guilty of immoral conduct; but any cruelty to animals — viz., every lack of respect for life, every thoughtless or wilful infliction of pain, every delight taken in torturing, injuring, or destroying sentient beings —is a crime that should be denounced and reprimanded and, if necessary, checked by the power of law.— Paul Carus, in *The Open Court.*

The Surgery of the Country Practitioner.—The surgical work of the country practitioner is varied in its scope, but it may be said that it consists to a very great extent in attention to emergencies. These may be of the most trivial kind, but they may also be of an appalling nature, such as try the souls of men, and it is often in this sort of work that the country doctor shows a power of correct and resolute decision which carries the day in the face of odds that appear to be insurmountable.

In surgery, as well as in medicine, the personal equation of the practitioner is a factor of paramount importance, and of all the elements which concur in the achievement of success, there is none of greater value than the possession of the rare faculty of so-called common sense. There was a justly celebrated surgeon whose terse description of the operation for strangulated hernia is well worth remembering. He said, "Cut through the Latin names and get to the gut." It takes but a moderate degree of skill to perform many an important operation; and a clear understanding of what is to be accomplished, with the utmost care never to cut unless you are sure of what your incision is going to accomplish, will often bring about a good result which no amount of theoretical knowledge alone could have achieved. In the treatment of fractures and dislocations the man with a mechanical bent of mind can accomplish wonders. In the treatment of wounds accurate coaptation of severed surfaces and a thorough understanding of cleanliness are the most important points. It is evident that in surgery an immense amount can be done by the man of quick perception and ready understanding, and we are thankful to be able to say that it is our belief that such individuals are many and widely scattered over the land, helpful, energetic, with faculties keen and ready to bear upon the most knotty problems that may be presented by the appalling emergencies which so often suddenly arise in the practise of our country doctors.—*International Journal of Surgery.*

Pleasure Without Other Sensations.—While exploring the sensations of various parts of the body about a year ago, I chanced to notice a phenomenon of which I find no mention in the various physiologies and psychologies. I submit the brief statement in the hope of learning if any one has previously made a similar observation, or if the fact, which I have repeatedly observed, can be confirmed by physicians who have the opportunity of testing large numbers of patients. The observation may be summed up as follows: Whereas the surface of the glans penis is moderatively sensitive to the pointed end of a toothpick and responds strongly to the point of a pin, the mucous membrane around the orifice of the urethra is absolutely lacking in sensations to touch in either case, although strong pressure with the point of a pin will cause pain. There is, however, another sensation aroused by the application of any object to this mucous membrane— namely, that of pleasure—which increases directly with the degree of erection. The confirmation of this observation would establish the hitherto unrecognized fact of the separate existence of pleasure as an independent sensation, a fact of considerable importance in the psychology of feeling.—Scripture, in *New York Medical Journal.*

Causes of Subnormal Temperature.—Direct withdrawal of heat from the body, as in cases of exposure of unconscious or drunken persons in a very cold atmosphere, or after immersion in very cold water:

Loss of great quantities of fluids from the body, as in severe diarrhœa, enteritis, cholera, or profuse hemorrage:

Conditions of cachexia and inanition, such as cancer of various parts of the alimentary canal, severe forms of diabetes, pernicious anæmia; convalescence from febrile affections, and many chronic mental diseases:

Grave circulatory disturbances, as in cardiac failure:

Various diseases of the central nervous system, tuberculous meningitis, the onset of cerebral hæmorrhage and embolism, brain tumor, general paralysis of the insane:

Irritation of sensory nerves, as in intestinal strangulation, renal and gall-stone colic, internal perforation of intestines, etc., surgical operations:

Extensive skin affections, such as scleroderma and extensive burns:

Fevers, where the temperature may long remain subnormal:

Poisoning by phosphorus, atropine, morphine, carbolic acid, alcoholic intoxication; also auto-intoxication of uremia, and in diabetic coma:

In some healthy persons subnormal temperatures are occasionally observed without any apparent cause.—*Omaha Clinic.*

Prostatic Plexus of Veins.—The usual description of the prostatic plexus by Zappey, Charpy, and Fort, is not the correct one, in many instances. Gulpin shows that the only way which permits of a proper study of these vessels is by injections, when it will be at once evident that they are in intimate relation with vessels of the vesical base and neck, the seminal vesicles and urethral embouchures. He shows that the vesico-prostatic plexus is in close relation with Sartorini's plexus and the hæmorrhoidal, though it is not in direct communication with them. The principal and most important of the venous leaches lie posterior to the prostatic body within the capsule; the minor may lie anterior and laterally. The dorsal veins of the penis descend directly into the larger intralobulæ of the prostate, near the point where we have a confluence of the hypogastric and pudic. Pathological changes in these vessels, from trauma, infection or senile influences, often mark the beginning of functional and organic defects in the rectal, the vesical, or prostatic structures.—*Canadian Medical Review.*

An Evil of Incomplete Coitus.—Under the name of a cardiac neurosis of sexual origin, Kisch describes symptoms observed in women whose husbands made it a practise to withdraw just before ejaculation, leaving them overexcited and unsatisfied. The physiological tachycardia of coitus becomes particularly intense in such women and assumes the form of very distressing palpitation which at first persists for some time after each incomplete copulation, and after a while occurs during the day, repeatedly and without appreciable cause. For a time this palpitation is the only manifestation of the neurosis, but soon the clinical picture is completed by a feeling of anguish, headache, vertigo, and general weakness. The women are depressed and irritable; they weep on the slightest occasion and take a gloomy view of life; appetite is impaired and digestion difficult; they are constipated; pulse is small, soft, and accelerated, often intermittent and arrhythmical. Ausculation of heart discloses nothing abnormal. The symptoms disappear as by enchantment when the practise on which they depend is given up.—*La Presse Medicale.*

Lavage of the Organism.—Intravenous injections of salt water exert an antidotal effect upon toxins introduced into, or formed within, the organism. Control experiments show that after injection of two centigrammes of potassium ferrocyanide into the veins of rabbits the injected substance appears quickly in the urine and becomes entirely eliminated in those receiving salt-water injections. Experiments with sodium sulphindigotate showed similar results. The beneficial effects of intravenous injections are therefore due to lavage of the blood, or rather of the organism, by which the toxins causing the symptoms are rapidly eliminated.—Roger, in *Medical Week.*

Unusual Case of Lockjaw.—A man aged twenty-four years, on waking one morning found he could not open his mouth as far as usual. The disability increased daily, until he was unable to separate his teeth. For four years he was treated without benefit, until it was discovered that the right upper wisdom tooth pointed directly outward, and so pressed against the internal pterygoid as to prevent the jaw from opening. It was removed with difficulty. Immediately after its extraction the jaw could be partially opened, and in eight weeks function was fully restored.—*Centralblatt für Chirurgie.*

The Medical Age.

VOL. XV. DETROIT, OCTOBER 25th, 1897. No 20.

Original Articles.

DIAGNOSIS AND TREATMENT OF UTERINE DEVIATIONS.

BY F. SHIMONEK, M.D.

While I am a little diffident in presenting a subject about which so much has been written and which has apparently been worn threadbare, yet its importance is very great, and from personal observation I am convinced that mistakes in diagnosis are very frequent. And yet such error is not because of any inherent difficulty in the subject, for in the vast majority of cases the uterus and the surroundings are easily reached, and if for any reason — such as tenderness from Fallopian, ovarian, or other perimetritic inflammation—it becomes impossible to make sufficiently exact manipulations to map out the organs, there is always anæsthesia as an auxiliary, making a correct diagnosis possible.

Errors in diagnosis are sometimes extremely amusing. For instance, a case presented in which four different diagnoses were made by five different physicians, and it seemed almost incredible that the opinions should have varied so greatly when there was really nothing to interfere with thorough examination. Two doctors diagnosed retroflexion, and one in addition discovered adhesions, and advised laparotomy; one found a simple anteflexion; one was quite sure he had found a fibroid in the anterior wall of the uterus, and so advised hysterectomy; the last could find nothing abnormal, either by conjoined manipulation or by use of sound.

I doubt not that many a poor woman has been subjected to unnecessary surgical procedure and mental discomfort. It is the object of this paper, therefore, to point out the reasons, to a limited extent, for such diametrically opposite views.

Leaving the individual equivalent out of consideration, I shall take the liberty to state that the reason depends to a great extent upon the fact that many fail to learn the *normal* position of the uterus. Correct diagnosis depends upon the comparison of the pathological with the physiological, and distinguishes the scientific from the empirical physician. I am conscious of the fact that some of the greatest observers of the past, and who are still quoted, were empirics simply by force of circumstances. While it is true that early writings (and later, for that matter) upon the subject were based upon insufficient and inexact data, and by referring to old and also to some more recent works, it will be found that the normal position of the uterus is differently given; yet there is a concensus of opinion among the older writers which has been confirmed by comparatively recent and absolutely exact methods. It is, therefore, necessary to know what position, or positions, if you please, those exact methods have shown to be normal. The practitioner will have noticed that more than one position is regarded normal, or, more properly speaking, since the uterus is a very movable organ and subject to the conditions of the adjacent viscera, that no one position may be regarded normal *at all times!* In order to make the subject as clear as possible in a limited space, permit me to enter somewhat into detail regarding the development of the uterus.

In the third month of embryonic development Miller's filaments coalesce in the lower part to form the genital canal and a bifid uterus, which is situated entirely without the small pelvis and in front of the lumbar vertebræ, slightly curved forward. At maturity of the child the uterus is a uniparous organ and has lost all indications of having been formed by the fusion of two halves; the cervix constitutes the larger part of the organ, and the lower part thereof is generally situated in the small pelvis; the upper part with

the body of the uterus is still placed vertically above the portio vaginalis.

Veit has found the uterus in the new-born in two conditions, which observations have been confirmed by Mackenrodt: the body was either sharply bent forward or the body and cervix had the same axis—*i. e.*, there was no anteflexion, but it was somewhat more inclined forward than in a six months' embryo and parallel with the upper part of the sacrum. Before puberty the cervix grows comparatively little, but the body grows more rapidly; it becomes thicker, wider, and gradually descends into the small pelvis, and when it has attained normal size the cavity measures about seven centimeters, and when bladder and rectum are empty is anteflexed; the axis of the body is nearly horizontal in the standing position, but in the dorsal decubitus the body ascends and the cervix descends. In the standing woman the fundus lies a few centimeters behind and above the symphysis pubis, and the cervix is about one inch in front of the sacrococcygeal joint.

In women who have borne children the position is slightly modified: The angle becomes obtuse or, more properly speaking, the uterus becomes straightened when both bladder and rectum are empty; this is the normal position, which has been determined by Schultze's indefatigable labors. As above stated, this normal position is subject to changes, on account of its movability, by the neighboring viscera, tumors, etc., but almost exclusively by the fulness of the bladder and rectum. While these influences are transitory, yet when frequent and prolonged the uterus may naturally become permanently deviated by the stretching and consequent atrophy of the ligamentous support. In women whose time and thought are taken up by society or by other matters, one frequently finds the capacity of the rectum or bladder, or both, enormously increased; consequently in determining the uterine position in a patient whose rectum or bladder is habitually overdistended, it is of great importance to bear these factors in mind. The influence of a full bladder upon the position of the uterus through the peritoneal reflection from the anterior wall of the uterus to the bladder, when overdistended, is to lift up the uterus, press it back, and straighten it. The illustrations in the old books invariably show the relations of the organs with a distended bladder and rectum, thus conveying a very misleading idea, and the effect of a full rectum is more marked than that of a full bladder, —a large fæcal mass will push the uterus forward or upward according to the situation and size of the mass, but if the latter be placed in the lower part of the rectum and below the cervix uteri, the cervix will be simply raised toward the promontory while the fundus will be consequently depressed, thus producing an exaggerated normal position which might be regarded by the inattentive or inexperienced man as pathological. A large mass in the upper part of the rectum will simply push the uterus forward; both organs being full the uterus will be raised out of the true pelvis and straightened—*i. e.*, its axis will then coincide with the axis of the cervix and inlet.

Having thus briefly considered some of the most salient points regarding the position and movability of the organ, it will be proper now to mention the means at our command which enable one to make a diagnosis. All are doubtless aware that the sound and bimanual palpation are the ways and means brought into requisition, and it is my belief that the latter should be relied upon exclusively in the majority of cases, though it, however, requires such a high degree of experience and proficiency that, unless the fingers are almost endowed with the sense of sight, the examiner is almost sure to fail. I am convinced that nearly every uterus, as well as the tubes and ovaries, can be thus outlined either with or without an anæsthetic.

Under ordinary conditions, obesity excluded, there is absolutely no difficulty in making out the relations of the organs; but where there are perimetritic inflammations almost insurmountable difficulties are encountered, the painful manipulations exciting, by reflex action, contraction of the abdominal muscles that defeat our effort. It is next to impossible under such circumstances to get a correct impression of the condition without profound anæsthesia. In the past the uterine probe or sound was utilized to determine the direction of the uterine axis, and with what results it is needless to say; of course, that was in the preantiseptic times. Such instru-

ments were regarded as extremely dangerous, and undoubtedly were the cause of many deaths owing to sepsis; and the objection still holds good, for while it is inexcusable, yet it is a fact that all do not appreciate the necessity of strict asepsis in minor gynæcological procedure, and it is safe to assert that many a case of chronic septic endometritis and pyosalpinx is directly due to the improper use of the sound and a criminal disregard of all precautions. In respect to digital examination for the purpose of determining the position of the uterus, special regard should be paid to rectum and bladder. Having made a diagnosis of a uterine deviation, the next point to decide is as to the treatment. This requires due consideration of ætiology and pathology. As the subject is too broad for specific consideration I must content myself with a very superficial delineation. It is impossible even to touch upon, much less do justice to, all deviations in the scope allowed a mere essay, but since retrodeviations are most frequent I shall confine myself chiefly to such.

Both retrodisplacements are by far most frequent in multiparæ, therefore pregnancy and confinement are the ætiological factors.

The versions are brought about by a weakening of the ligamental support and destruction of the pelvic fascia and levator ani muscle. Retroflexion is very much more frequent, and occurs almost exclusively after labor,—according to my knowledge, it is one of the rarest of lesions in nulliparæ. The *modus operandi* of its production is by a weakening and softening of the uterine parenchyma, so that the superimposed viscera, in addition to the relaxed ligaments, etc., bend the uterus backward; in other words, a retroflexed uterus presupposes a diseased organ, and the subjective symptoms frequently depend upon the preceding disease—*i.e.*, a subinvolution followed by a simple, chronic, or septic metritis impairing the nutrition and disorganizing the tissue. The diseased and heavy uterus remaining permanently in a faulty position, the progress of the disease is naturally from bad to worse; endometritis is aggravated by the improper drainage until the inflammation extends by continuity of tissue into the Fallopian tubes or through the lymphatics and veins into the pelvic cavity, producing agglutination of the peritoneal surfaces, and fixing the uterus; hence more subjective manifestations are superadded, the vicious circle is completed, and the patient is in a deplorable condition. Kelly says that the backward displacements constitute one of the most important questions of the day for the reasons, first, of their frequency, and second, because the treatment is in an evolutionary state; and the most efficient treatment is purely surgical, attacking the displacement either through the vagina or abdomen, or through both avenues at once.

I am not in perfect accord with this opinion, for because a deviation sometimes causes no subjective symptoms is no positive reason why it should be left without treatment; because sooner or later endometritis, due to bad drainage and congestion, with its concomitants, is almost sure to follow. No one can predict which case will go through life with a retrodeviation without developing inflammatory conditions. As an illustration of this I wish to relate briefly the following case:

I removed the tubes and ovaries from an unmarried lady 35 years of age, April 9th, 1897. She was always comparatively well until two or three years before, when the subjective symptoms led her physician to curette the uterus; from that time on she became worse, with pain in the pelvis, and irregular and extremely painful menstruation; the pain was so severe that for days she was not able to be out of bed. I found a retroverted uterus, one large cystic ovary firmly fixed in Douglas' pouch, the other ovary also enlarged and fixed; the entire pelvic tissue excessively tender. She readily consented to a laparotomy. The uterus was found as stated and partially adherent by frail adhesions; the ovaries were very firmly adherent and cystic. The analysis of the symptoms points almost certainly to, primarily, a retroverted uterus, which by hindering drainage caused endometritis and kinking of the pampiniform plexus, causing congestion, interfering with proper nutrition, thereby lowering vital resistance. The curettage simply implanted pathogenic microbes upon the prepared soil, and by extension produced pelvic peritonitis and adhesions. The patient was very closely questioned regarding a specific infection, but her earnest denial convinced me that the cause must be looked for elsewhere. I am, therefore, convinced that the cause was a simple retroversion. The uterus was suspended *a la* Kelly.

The correct method to deal with any given case of retrodisplacement will fall under one of the following heads: First, use of pessaries: Second, manual reposition and massage: Third, operation upon the vaginal outlet: Fourth: Operation on the uterus at the vaginal outlet: Fifth, shortening the round ligaments: Sixth, a suspensory abdominal operation or ventro-fixation: Seventh, an operation upon the vaginal outlet and a suspensory operation combined: Eighth, advancing the anterior vaginal wall higher upon the anterior uterine wall.

In the past pessaries were used promiscuously in all cases, and were regarded as the sheet-anchor of hope. Thomas held the view that they were as necessary in the treatment of uterine dislocations as splints were necessary in the treatment of fractures of bones. Gradually, through increased experience, they became less indispensable, until their use has become greatly limited, so that it seems as if they would be superseded in the near future by other improved methods. Yet I believe that there are cases in which pessaries may be employed to decided advantage, but they must be carefully selected and accurately fitted—an ill-fitting pessary is always hurtful. Unless one has the necessary education and experience to be able to foresee what effect in all probability will be produced in a given case, the pessary had better by far be left out of consideration. It seems to me that in a simple retroversion, without any complications, with no subjective symptoms—a retroversion that is discovered accidentally and which is regarded harmless and consequently requiring no treatment—a well adjusted Albert Smith pessary, in addition to massage and manual reposition, is a decided prophylactic measure; I believe that this is the only condition in which pessaries are at all applicable and useful. Any form of deviation *may* be successfully treated by manual reposition and massage alone, and Brandt has succeeded in bringing about permanent cures in many cases where other methods failed; but it is also true that the method is surrounded by many difficulties which often render it well-nigh impracticable. In the first place it is absolutely necessary to exclude complications which would endanger life by massage, such as pyosalpinx, pelvic abscess, ovarian abscess, ectopic pregnancy, etc. Again, the treatment requires a great deal of time and expense; hence, however valuable it may be, its applicability is limited to a very few cases. Repair of the levator ani muscle and the pelvic fascia is an extremely important item in the treatment of uterine displacements.

It is self-evident that an early perineorrhaphy will be a preventive measure, while a late repair will assist other procedures in curing the dislocation; it may of itself prevent any further deviation. Lacerations of the cervix uteri are a fruitful cause of subinvolution, interfering with metabolic changes and weakening the tissue, retroflexion completing the picture; here, again, early repair may prevent a deviation.

Whatever procedure is resorted to, repair the cervix and perineum first. There are two or more operations that may be selected having for their object the restoration of the uterus to normal, either by attaching to the anterior abdominal wall, or by shortening the round ligaments, etc. The first of these, or ventrofixation, is not in the true sense of the word a fixation, because the uterus is not fastened to a fixed point; the peritoneal surfaces become adherent, and may eventually elongate and the uterus remain suspended from the point of attachment, or it may even drop back into the old place. While there are objections to Kelly's suspensio-uteri operation, yet I am convinced it is far superior to the ordinary hysteropexy, for the reason that thereby a ligament is formed by which the uterus is suspended from the anterior abdominal wall, while in the old operation broad surfaces are brought together by through-and-through sutures. It is advised to pass the sutures through the peritoneum on the posterior uterine surface for the purpose of producing an anteflexion in order to have the intestinal weight assist in retaining the organ in the proper place. A great many cases of dystocia have been reported lately, resulting from lack of development of that part of the fundus which is fixed in an anteflexed position; the uterus is developed irregularly, and it increases in size at the expense of the posterior wall, and a ruptured uterus has been the result on several occasions.

I have done Kelly's suspensio-uteri operation a few times, and am very much pleased with it, the results in all being very encouraging. Shortening the round ligaments, or Alexander's operation, is generally regarded as of very limited applicability, yet some operators resort to it in all cases of retrodeviation, notably Edebohls of New York, who reported in the *American Gynæcological and Obstetrical Journal* 115 cases, comprising complications such as adhesions, salpingitis, ovaritis, retroflexion with adhesions, etc., with very excellent results.

It is impossible to enter into a detail of these interesting procedures. The use of glycerin and ichthyol tampons in the treatment of retrodisplacements, and particularly in those complicated with the perimetritic inflammation, is valuable; and while such is tedious and consequently discouraging to both patient and physician, yet, where it can be persistently and thoroughly carried out it is of great value. Glycerin, by its affinity for water, depletes the tissue. Ichthyol, five or ten per cent. in glycerin, alleviates pain and hastens absorption. Replace the uterus and introduce one tampon into the posterior vaginal fornix, and pack it in quite firmly; this will press the uterus anteriorly; then introduce another one, but larger, straight into the vagina against the anterior lip of the cervix, whose object is to hold the first one in place; next, to raise the uterus and tampon, thereby increasing the anteposition and also improving the circulation by straightening the pampiniform plexus of veins. Finally, I wish to make a suggestion respecting the treatment of simple retrodeviation by a simple operation, and that is, as mentioned above, the advancing of the anterior vaginal wall higher upon the uterus.

Milwaukee, Wisconsin.

FRACTURES OF SOME LONG BONES.

BY E. L. HERRIOTT, M.D.

It is not with the hope of suggesting anything new that I prepared this paper, but rather to call attention to certain facts connected with the fracture of long bones in a way to aid the reader to steer clear of some of the difficulties.

As to the diagnosis of fracture of some bones *versus* fracture or rupture of ligaments or tendons, or severe sprains, many suggestions, or rules, are contained in the numerous text-books. But any one who has had even a moderate experience and observation must attest that in some instances only the most strict and careful scrutiny, together with judgment based upon experience and surrounding circumstances, aside from rules laid down by text writers, will be required to guide to a correct diagnosis. This being arrived at, the question of treatment need scarcely be a vexatious one, if the surroundings are favorable and the fracture one of ordinary character.

The different apparatus designed during the last half century for the treatment of the ordinary fracture of long bones, more especially of the leg, are almost innumerable, and to one altogether inexperienced it would seem a difficult matter to select, if all were within reach, the particular appliance best suited to the individual case; circumstances and conditions should be the chief factors in selecting that which will be the least cumbersome, afford the patient the least annoyance, keep the fractured ends in proper apposition —thereby keeping the muscles, tendons and nerves in a peaceable state—keep up gentle extension and counter-extension, insuring as nearly full length as possible; and in most cases of ordinary fracture it is possible to secure results such that, after a time, it is hard to determine, except by the closest measurement, which of the two limbs has been broken. To one with some experience I would say, select that, and only that, which has given results sufficiently satisfactory to win his confidence. The same common-sense appliance, giving good results in the hands of one man, may not be uniformly successful in the hands of another for various reasons.

First, I will call attention to the anterior wire splint, devised some years ago by the late Professor John T. Hodgen, of St. Louis, which in his hands and perhaps some others seemed to yield perfect success as to results, giving the wearer much ease and comfort. But this splint does not seem to have grown in general favor with the profession, though so well adapted to its place in the hands of its inventor. While I had great confidence

in Hodgen's ability as a surgeon and a man, and took to him many cases for the benefit of his superior judgment, I did not have faith enough in my own ability to get good results in the use of his splint, and therefore never tried it, but kept right along using the appliance that had given me satisfaction, instead of trying that which seemed to have some advantage over my sheet-anchor.

During 1873, when John B. Hamilton, now of Chicago, was one of the committee to report to the Illinois State Medical Society on surgery, he requested me to give him a statement of my cases to tabulate in his report. On referring to it I find I reported thirteen cases of fracture of the femur, with a maximum shortening of one-fourth inch, and some with no discernible shortening and no deformity; also five cases of fracture of tibia and fibula, with about the same results. Of these I distinctly remember one was a lad of seventeen, with a fracture of left femur at junction of middle with upper third, that had been adjusted and dressing applied by two physicians eighteen days prior to the time I saw it in connection with the man who was first called. Plaster of Paris had been applied while there was considerable swelling. In drying, the plaster had shrunk away from the limb, and the swelling had receded so that the dressing was nowhere near the surface; the limb was shortened nearly two and a half inches. On removing dressing there was quite an angle at site of fracture, with lower fragment resting well up on anterior aspect of upper fragment, in which position quite strong union had formed. After making preparation and placing patient well under an anæsthetic, I broke down the callus, made forcible extension and counter-extension, until limb was almost to normal length; then placed on sand-bags, with knee slightly flexed, and applied, over pulley, all the weight he could possibly endure without too much suffering. Patient in time made a good recovery, without any noticeable shortening. But all know there is a goodly percentage of the human family whose limbs are naturally of unequal length, though unobserved by themselves or any one else. Garson, of London, in examining seventy skeletons, ranging from twelve years upward, found only ten per cent. which were exactly of the same length; in his measurements the left leg was longest in thirty-eight cases, the right in twenty-five. But if after one has been broken it on close measurement happens to show shortening to the extent of one-fourth inch, the surgeon has not made a complete success in the eyes of patient or friends; hence the necessity of calling attention to this fact in all cases of fracture of lower extremities.

There are certain matters that demand extreme caution: First, the possibility of non-union, with no attributable cause; this fact should always be explained as a safeguard against contingencies. Second, I once saw a fracture of the humerus in a robust looking young man of twenty-three adjusted by the late Professor Moses Gunn, with apparently all the confidence of success imaginable, which at the end of eighteen or twenty days showed not the slightest inclination to union; whereupon he punctured the soft parts, thoroughly irritated the fractured ends of bones and re-dressed it with somewhat less confidence than on the first occasion. In about the same length of time the dressings were removed and the same results obtained, after which a lengthy incision was made, the ends of the bones turned out, sawed off, and re-dressed, without producing any better results; and it had to be left to Nature to form a cartilaginous or false joint. Yet no constitutional taint or other cause could be found to account for this circumstance.

The ambulatory treatment advocated recently I do not think likely to become popular. One also sees adverse criticisms on the method of removing dressings every few days, and producing passive motion at the fractured ends. Within my own experience only a few of the many dressings for fractures of the long bones have been called into requisition. At the head of the list I would name sand-bags, with weight and pulley; yucca splints, so much used on the Pacific coast; sole-leather; perforated tin splints; plaster of Paris, though the latter should never be used as a primary dressing where length of limb is the great desideratum, unless it be in the lower leg, with but one bone fractured, the other maintaining the desired length.

The following will illustrate an error into which I am not likely to fall a second time:

During very hot weather in July, 1894, I was summoned to J. C——, a lad of 16, living nine miles from town, said to have a broken leg. Arming myself with a lot of plaster bandage and a small pulley, I went hurriedly. There was no available hospital here at the time, but the grandfather of the lad told me to have him brought to his house in town, where he could have better care and be seen by me often with greater convenience. This invitation, however, was declined. I found a fracture of fibula and tibia of left leg, about the middle of middle third, the latter so oblique as to amount almost to a longitudinal fracture, with the ends of both bones protruding through the soft parts, making a very bad laceration; the accident was produced by the kick of a horse a mile or more from home. The leg, of course, was limp and bleeding profusely. The lad managed to get on higher ground than the horse, and with his hand placed his foot over its back, and by this means mounted and rode home through the broiling sun, with blood continuously streaming from the wound.

The surroundings were much worse than bad. I strongly urged that the grandfather's request be complied with, assuring them that I could make the boy comparatively comfortable for the trip, and that it would be much better done before any adjustment of the fracture should be made. My persuasive efforts were fruitless; their minds were made up. What was I to do? To abandon the case would have delayed it some time. I was on the ground and felt that it should be undertaken, although it would involve a great deal of time and trouble, with very considerable expense to the parents if I ever received any adequate recompense for such services. Assuring them that many a leg, with no worse injury than this, had to be amputated to save life, I undertook it and soon determined which of the only two dressings at command was to be considered. Besides requiring the greatest possible extension and counter-extension, the severe laceration had to be dressed antiseptically, at least twice a day. The only room in the house had to accommodate the family of nine at night, while a shed attached at one side served as a dining-room and kitchen, and contained a huge cooking stove, capable of producing immense heat. Near by was the dry bed of a stream that furnished very good sand, after being sifted. The wound was so large that it was not hard to determine by actual touch to end of bones when they were in proper apposition. Then applying the many-tailed bandage, over a roller bandage, up to an inch or two of wound, I instructed the mother and sister how to lay open the many tails, from the knee to a short distance below the wound, and how to cleanse it and apply the dry dressing, cover with absorbent cotton, and reapply the bandage. The weight, I determined, must be quite heavy to prevent muscular contraction, since the muscles were in a high state of irritation; but the lad was quite brave, and withal not very uncomfortable. I left feeling that I had done better than to abandon him in his severe misfortune, if my instructions were thoroughly carried out, of which I had more or less misgiving owing to lack of judgment and experience on the part of the nurses.

I returned next morning and found the limb a little out of line, but in very fair condition. The wound I knew had to suppurate and granulate, but I was particular in my instructions as to preventing soil of bandage, etc., and keeping wound thoroughly cleansed. I returned again in two or three days and found wound progressing very slowly. To prevent sloughing of heel I had allowed it to project a little beyond the sand-bag, with a pad under and immediately above it, with instructions, should patient slip down in the least, he must be taken under arms and drawn up without touching the weight. Up to tenth day things seemed to be progressing so favorably I thought it unnecessary to see him for a few days, when soon after the father came in and reported there was a small speck of something white in the wound that would not brush off and looked like bone. I said it very likely was a small spicula of bone working out of the wound, and gave him a pair of pliers and told him to lift it up, and if it seemed to be attached, cut off the attachment with scissors and remove it. The next evening he returned and told me it seemed like a solid bone, which showed larger and would not come out. Next morning I went out and saw immediately, with much vexation, the trouble. The pad directly above the heel under ankle had been allowed to work out. He had slipped too low down and the foot had dropped, making a fulcrum of the upper end of lower fragment, prying up the upper fragment, exposing one-half to three-fourths inch of lower end, and separating it entirely from lower portion of bone; and it was entirely denuded of periosteum. The fibula seemed to be quite well united. I irritated the under side of upper fragment, readjusted foot and fractured ends, but told

them that the nude end of bone would, in all probability, have to be chiseled off. The second day following I took with me a surgeon to substantiate what I had told them and to assist me. Two of us were too many for them to resist, and we succeeded in moving the boy to his grandfather's.

Were such work to be done over again, I would not attempt it without having patient where I could see him every day, and if necessary two or three times every day.

In this foregoing case my colleague did excellent work in taking off end of bone, and we then put the leg into plaster splint, which has been my almost invariable habit, after due extension is had, though I should hardly have done so in this case,—the wound was still open, extension retained by the union of fibula, and the plaster being cumbersome I should have preferred to use a lighter fixed splint, and did so later with good effect. One error on my colleague's part, I fear, was that he was not explicit, so far as I have been able to learn, in assuring the family that the primary dressing was in every respect a proper and efficient one; that had not the foot been allowed to drop out of position the result would have proven as perfect as it could have been under any manner of dressing. Of this I am fully confident.

Another essential caution is to remember, when called in consultation to an accident resulting from lack of proper care in nursing, to carefully state the facts. In the above case it caused a refusal to settle the bill, and even a threat of suit for malpractise, although the limb made a fairly useful recovery, considering the accident resulted from careless nursing.

The least possible dressing, the more easy the inspection of limb, the cooler and more comfortable the patient; and I know of no more simple and efficient means than is accorded by sand-bags, as splint, when properly placed,—they are easily adjusted, cool, cleanly, and conform readily to the symmetry of the limb. With the foot of the bed well elevated, the weight over pulley keeps up constant and regular traction, and no matter what the movement of the body or limb the same traction is maintained, and after a few days all muscular rigidity is overcome and comparative comfort ensues. This dressing is especially well adapted to fractures of the neck of the femur. Surround the hips by firm, soft, broad bandages, place short, solid sand-bags on either side of hips; bend the knee by bag made to retain the greater amount of sand immediately underneath the flexion, sloping both upward and downward; retain limb in normal position by bags on either side; then make the traction. It has seemed useless and barbarous to me to see the whole pelvis, hips and portion of the thighs embedded in a case of plaster, which, when dry, makes no pressure on the parts, but only an uncomfortable trough for a suffering patient to lie in. I once had a case of this kind which my assistant insisted on placing in such a cast, and each day devolved upon me to run my hand and arm, which I could easily do, coat-sleeve and all, down from above, between the cast and patient's anatomy, to claw out the crumbled plaster that made her so uncomfortable. Now what advantage could this have been to the fractured bone, or to the patient in any way? I have treated a number of cases without it, and never again shall such torture be applied with my consent. Plaster of Paris has its uses in surgical dressings, but rarely ever in primary dressings. In delivering a primipara with breech presentation, instead of knees being flexed upon the body and legs flexed on thighs, the limbs were only flexed at hips, with feet alongside of head. I succeeded in bringing down right foot, but in trying to bring down the left the femur snapped at the middle. When child was delivered the right foot took its former position alongside of the head, and for some time when drawn down it would immediately fly back. The left was limp, the upper end flexed, but not close to body, while the limb hung in any direction. Here was a case in which extension and counter-extension were out of the question. Taking a pretty stiff piece of wire, I bent a curve at one end to put up under the arm, and at hip bent a short curve, running it along outside of thigh to knee, where I bent another short curve and ran it to the foot. Wrapping it with cotton, I bandaged it to the side of the body, then to the hip and thigh, and down leg to foot; then applied plaster bandage to hip, thigh, and knee, making tension between hip-

and knee joints, retaining it until plaster was well set, allowing the muscles to remain in their natural position. There being very little irritation, there was but little contraction. The young lady now has a left limb as perfect as the right. Hamilton says:

Whatever the mere theorist may say to the contrary, the fact is we do not usually set broken bones. We do not, even at the first, bring them into complete apposition, unless it is the exception.

This is undoubtedly true in many instances. It is the muscles and tendons we should expect to set, and keep set; and if this is properly done, they will set the bones, unless it be in comminuted fractures where small fragments are uncontrolled by the muscles and tendons, or in compound fractures where the latter are so lacerated and broken as to be unable to control the fractured bones.

Compound fractures will generally require amputation unless the wound is very small. (Druitt.)

Compound fractures obey no uniform law of repair, but they come together finally, with more or less irregular distributions of ossified matter, according to the varying circumstances of imperfect coaptation. (Ashurst.)

Interposition of a reparative material between the broken ends, and when the fragments remain in exact position, often prevents immediate union. This is especially apt to occur in superficial bones, such as the tibia. It is not an unusual circumstance to find the shaft of the tibia, during the process of union, presenting no exterior callus upon its anterior and inner surfaces, whilst the posterior and outer section of its circumference is covered with an abundant deposit. In other cases of fractures of the shaft, however, the intermediate callus secures a prompt union, but no ensheathing callus is ever formed.

In general, it may be said that simple oblique fractures occurring in the shafts of long bones unite with some shortening; indeed, this rule presents but few exceptions. This is due to the overlapping, or to the impaction, both of which, in most cases, we are completely unable to overcome. It is scarcely necessary to say that the inevitable result of such overlapping is a more or less manifest irregularity or deformity at the seat of fracture. All compound, comminuted and complicated fractures, which in their very nature present additional obstacles in the way of complete adjustment and proper support, are likely to entail deformity. (Hamilton.)

Compound fractures are much more serious than simple because they involve more serious injury to the bone itself; because in them the tearing of the periosteum is greater, and there is more risk of impairment of nutrition, recovery being thus hindered, rendered more difficult, or prevented; because the violence done to the surrounding parts is greater; and because subcutaneous injuries of all kinds are repaired more readily than those which are deprived of the protection of the skin. Suppuration is almost sure to follow upon compound fracture. Professor Stephen Smith, of Bellevue and St. Vincent's Hospitals, New York, in his work on surgery, speaks of compound fractures coming in contact with the external air as having always been considered dangerous, because such wounds commonly inflame and suppurate, and the first question to determine is as to the possibility of saving the limb. The thorough use of disinfectants aids materially towards saving the limb from suppuration, gangrene, and loss of limb. (Ashurst.)

Sand-bags are most convenient in keeping fractures of the leg in proper position, using them to place the broken limb upon, and also to place on either side. They so readily conform to the contour of the limb, and are so ponderous that they retain whatever position is given them. The many-tailed bandage is convenient in compound fractures, extension and counter extension by weight and pulley. (Druitt.)

Professor Smith gives a full description of the extension and counter-extension by weight and pulley in his work on surgery, and declares the weight to be employed must be determined by the resistance to be overcome, and the toleration of the patient; that the maximum should not be over twenty pounds; and the sooner the limb is put up and subjected to this method after the fracture the better, as suffering is prevented and the patient is made more comfortable from the onset.

Swinburn, in Holmes' System of Surgery, advises the treatment of all fractures of the leg by extension and counter-extension, without splints or other means of lateral support; and Ashurst describes the method of dressing with weights and pulley, foot of bed being elevated, and with the use of sand-bags.

Sayre's claim of treating even a simple fracture of the leg by plaster-of-Paris dressing without shortening is refuted by the report of the case of Henry B——, aged 37, who was admitted to Ward 14, Bellevue, with a simple fracture of the left femur, near its middle. Five hours after the receipt of the injury two of our most experienced house surgeons put the patient under the influence of ether, and with pulleys made extension, until, as they declared, the limbs were of the same length. They then applied the plaster-of-Paris splint. Five weeks and three days from date of dressing the man was brought before the class in

my surgical clinic at Bellevue, in the presence of Dr. Sayre. The splints being removed the limb was found united, with a slight bend at the seat of the fracture, and the knee-joint very stiff. On measurement I found it shortened one inch.

Plaster-of-Paris and all other forms of immovable dressing do not possess one single point of excellence or advantage. When first applied they are liable to constrict the limb dangerously; and how insidiously a fatal gangrene may progress, giving no sign, either by pain or general disturbance, until the destruction is nearly complete, the case seen by Defer and referred to in the preceding pages will show. The cases which I have reported, also in the preceding pages, demonstrate how inefficient these dressings are as a means of approximating the fragments; the examples of the widest separation being drawn almost exclusively from cases treated by the plaster of Paris, or the silicates. The dressings, which within a few days or hours are apt to become very tight in consequence of the increased swelling, soon begin to loosen from the subsidence of the swelling at first, and finally from atrophy of the muscles and other soft tissues, and the limb lies loose in its case, which may not even touch it, except as it lies in the bottom of the case, much less make any effective pressure upon it.

It is certain that this form of dressing makes no permanent extension within a range of three-fourths of an inch, and that therefore for all practical purposes as a means of preventing shortening it is useless. A deviation from the natural axis of the limb has been noticed by me in a good many instances. Several times the lower part of the limb has fallen backwards, or, in consequence of its having rested too much on the heel, it has inclined forward; and in other cases it has inclined outwards or inwards. Ulcers upon the back of the heel have frequently resulted from undue pressure upon this part. Anchylosis of the knee or ankle-joint may follow from the use of the plaster-of-Paris splint. The many-tailed bandage, made of narrow strips of cloth laid upon each other, has proven extremely useful.

Some have attempted to remedy these serious objections to these dressings by first applying adhesive plaster in the form of a lock strap, and in various other ingenious ways above and below the fragments. I have seen this done repeatedly, and my reported cases furnish quite a number of examples; but in almost every case the straps soon became painful and had to be removed, and this required the opening of the plaster splint, or its entire removal. In one of the cases reported by me the adhesive straps caused such excessive pain as demanded the use of hypodermatic injections of morphine repeatedly, and it resulted in almost complete paralysis of the extensor muscles of the foot, which continued many months after treatment was suspended. Yet from all this there was no reliable gain, inasmuch as the fragments united by ligament, with the usual amount of suppuration. Indeed, so far as the position of the fragments was concerned, the dressings had only proved mischievous by thrusting one of the fragments laterally. Plaster of Paris is, of all the forms of immovable dressings, *the worst, because it is the heaviest;* but of them all, it must be said they are an unnecessarily cumbrous apparatus They are to some extent dangerous, and inefficient as a means of approximating the fragments. The limb can be maintained in a straight position by a much simpler and lighter dressing than plaster of Paris, and by means which permit it to be daily examined and the condition noted. (Hamilton.)

Plaster bandages, the Bavarian splint, and other forms of solidifying dressings, have found many advocates the last forty years; one objection which holds against every form of it as primary dressings is that it prevents the constant inspection of the limb, which alone can assure the surgeon that it is kept properly in shape.

No apparatus which will exercise rigid pressure should be applied to a recent broken bone if there is much contusion. Mischief may arise in a very few hours which may cost the patient his limb, and the surgeon his reputation. Actual inspection carefully made at intervals can alone guard against bad results. The whole limb should be examined and nothing left to chance. Hamilton, on page 88, speaking of delayed union, says if the fragments have been officiously or carelessly disturbed, it may be sufficient to impose upon the limb absolute rest for a certain length of time after the fragments have been pressed and rubbed together and coaptation secured. Remove the bandages and expose the limb freely to the light. (Ashurst.)

Jacksonville, Illinois.

ONE WAY OF ATTACKING THE DISPENSARY EVIL.

BY DOCTOR A. L. BENEDICT.

Much has been said and written on the subject of the abuse of medical charity. Some have undoubtedly had at heart jealousy of those connected with dispensaries and similar institutions and uttered statements false alike in letter and in spirit. Others, guided by the loftiest motives but ignorant of details, have still spoken with exaggeration or distortion of the facts concerned. Nevertheless, no impartial observer of medical affairs in great cities, or even those of second magnitude, can deny that medical charity is abused by persons well able to pay for attendance, and that personal vanity or immediate selfish benefit have blinded the eyes of some physicians con-

nected with dispensaries to the ultimate welfare of society at large, and particularly of the medical and pharmacal professions.

The remedy which I have to propose is certainly not a panacea, but a palliative rather than a radical measure; it has the merit of moderation, and its application is not entirely dependent on a wholesale reform of human nature. It is useless to clamor for an abandonment of medical "charity" by those who are deriving benefit from it, and it is worse than useless to claim that all medical almsgiving is tainted with a selfish spirit and hence all dispensaries should be closed.

This paper deals—narrowly, it may be admitted—with one method of curbing the evils of the dispensary, a method which rests wholly on the willingness of the dispensaries and the pharmacal profession to compromise for mutual benefit and convenience. The writer was at one time connected with a dispensary whose attempted plan of action was the furnishing of gratuitous medical advice, while the patient was expected to buy his prescriptions at some drug store.—It may be stated this dispensary was a *bona fide* charitable institution, under supervision of a charitable organization which investigated every applicant as soon as possible; this statement is necessary, as not a few dispensaries are organized by a syndicate of physicians for purely mercenary ends. The plan failed utterly, for the simple reason that the patients—most of whom were really poor and at least immediately deserving—could not pay the price asked for prescriptions and were forced to seek other dispensaries, or even to consult private physicians who dispensed medicines and whose rates for advice were low. Rather than close the dispensary —which had had an existence of several years on the basis of free medicines—it was decided to put in a new stock of drugs, and use economy and system in prescribing, so as to reduce the cost to a minimum, and also to make the patients pay for medicine in so far as possible. It was found by careful estimate, corroborated by actual experience, that a dispensary could be run on this plan at an average expense of ten cents per patient per visit, providing all paid. Of course some deficit had to be made up on account of patients unable to pay even this nominal fee.

In my opinion it would be far better to separate the medical from the pharmacal part of the dispensary and restore the latter to its proper profession; in other words, the dispensary should furnish only medical advice and prescription, while the filling of the latter should devolve either on some drug store or on a properly organized and supervised practical department of a college of pharmacy; and the matter of distance, as well as other considerations which will be alluded to later, would make it usually necessary and advisable that the patient should present the prescription at some drug store. By this arrangement professional students in each line would receive abundant practical training, whereas at present the compounding of prescriptions at dispensaries usually falls to the lot of medical students, or of some one or two pharmacal students, or to a paid pharmacist, and, in any case, without proper supervision or due utilization of the dispensary for the systematic instruction of pharmacal students.

But such an arrangement would necessitate mutual concessions. That on the part of the druggist is easily stated but not so easily fulfilled. He must rigorously hold himself to the idea of charging simply the actual wholesale cost of the drugs against the dispensary, without charge for bottles, powder papers, time, wear and tear of utensils and room, or anything else. On the other hand, the medical staff must be held as closely as possible to inexpensive forms of drugs, such as stock solutions of common, official chemicals and tablets. Palatability must be secured by prescribing in tablet or capsule, and fancy preparations of all sorts excluded, as well as those requiring much labor, unless the training of students is made an object.

The pharmacist will naturally ask, "What is there in such a scheme to enlist my sympathies, and why should I sacrifice my labor, time, and reasonable profit?" To a certain extent this question may be answered by the reminder that it is precisely what the medical profession is called upon to do for charity. But there are other reasons more cogent. Whenever a college of pharmacy exists in a city—and few cities that have dispensaries

of any size are now without them—this institution should recognize that the dispensary offers its students the same relative advantages as it does the college of medicine; that the same superiority of this method of instruction exists over the present method of store experience that exists when is compared the careful clinical training of the present medical student with the old method of student-registration and preceptorship. The student may not recognize this fact, especially if he is influenced materially by the financial return of store experience, and the individual college of pharmacy may not wish to take the extra trouble of this form of practical instruction; but the fact exists and must sooner or later be recognized by all progressive colleges of pharmacy and by all earnest students.

Again, the method proposed preserves the enormous drug trade of the dispensary to the profession to which it belongs. Even in places where no college of pharmacy exists, the *esprit du corps* of the local druggists ought to be sufficient to maintain this work in the hands of their association and to utilize it for the instruction of their junior clerks.

So far as the proposed method deals with the limitation of the dispensary evil *per se*, the pharmacal profession must recognize it as a means toward preserving from medico-pharmacal "charity" a considerable bulk of "trade" that ought to go to physicians and druggists at current or somewhat reduced rates. In making any endeavor toward such an end, immediate personal advantage of a pecuniary sort must be forgotten. The physician must not say, "What is the use of trying to keep this patient from abusing the dispensary? She won't come to me anyhow;" nor must the pharmacist balance the estimated saving of custom against the time and labor involved in the same narrow commercial spirit. Both must unite, first, to preserve for their respective professions an amount of income which is now lost through the abuse of dispensary charity, and secondly, to make it harder for weak-minded persons to degenerate into dead-beats and to encourage or force them into an honest business policy. So far as this object is concerned, I would urge that the prescription filling of a dispensary should be done at a convenient drug store, or at some few shops to be selected as impartially as may be. The patient who is able to pay for medical advice and medicine will not be so likely to impose on two institutions as on one, nor will he have the same feeling about a private interview with a physician whose mouth is sealed by his professional oath, as about presenting an order for medicine on a blank of a charitable institution at a counter where he may meet his self-respecting and honest acquaintances. The seeker after medical charity sometimes does it under the pretense of the inspiration of the moment, or he tries to pass it off as a joke; this form of imposition would be effectually prevented by the additional formality of carrying a pauper's prescription to a drug store.

Thus far nothing has been said as to the method of compensating the pharmacist for compounding dispensary prescriptions. Without giving the matter much thought, and in the case of poorly endowed dispensaries, I am inclined to favor the principle of making an average charge—which, as above stated, would be about ten cents—in the case of each patient able to pay. The actual collection of money or the abolition of the fee in cases of great poverty should, of course, be relegated to the lay management of the dispensary, as neither physician nor pharmacist should have even the appearance of receiving pay from the applicant for charity. If the dispensary is sufficiently endowed, I would favor the abolition of all fees, as many charity patients are rendered too independent if allowed to pay even a nominal sum. I know that this is contrary to the idea of many professional philanthropists, who urge the maintenance of the patient's self-respect. But the really honorable applicant for medical charity understands that the fee charged simply "helps along," and does not, in any adequate degree, represent a payment for services or medicine. Moreover, many patients regard their ten-cent fee as a *quid pro quo* and make it an excuse for arrogance in the treatment of their benefactors, or even for coming to the dispensary, instead of paying for private medical and pharmacal services. In short, the dispensary which charges any fee at all is looked upon by many members of the improvident class as a sort of physi-

cians' and druggists' bargain counter. On the other hand, the absolute lack of funds on the part of many charitable enterprises often makes it necessary for the dispensary to get what it can from patients. It must be remembered that the dispensary which limits its work to a proper class of patients cannot collect from them enough to pay for the actual wholesale cost of medicines, and that both medical and pharmacal *services* should be rendered freely or not at all. It is also wise that the patient should remain in ignorance of the real cost of medicines, partly because of the impression that the efficacy of a drug may be judged by its cost, partly because of the inevitable friction which would result from the comparison of wholesale cost with the rates usually—and I refer only to proper profits — charged. For the last two reasons alone the collection of the fees should not be made by the pharmacist.

And, finally, it must be conceded that no such arrangement can do more than mitigate the severity of the dispensary evil. It cannot make honest men and women out of dead-beats; nor can it develop selfish physicians into altruists; nor can it restore an equilibrium between the laity and two crowded professions. Perhaps the greatest good that can be accomplished will be the bringing together of two professions, too often at rivalry, in attempts to assist honest poverty and to thwart the efforts of the shiftless and dishonest to impose on a charity whose inception and proper purpose are among the grandest that humanity affords.

174 Franklin Street,
Buffalo, N. Y.

THE HUSTLING DOCTOR.*

BY W. E. WARD, M.D.

There was a time, long years ago,
When doctors, so 'tis said,
Took everything quite leisurely,
And kept a level head.
Their movements were deliberate,
Their speech was slow and calm—
They gave the sick a confidence
Which soothed like Nature's balm.

They'd look their patient o'er with care.
Ask questions, few but plain;
And wisely, and with reason, too,
From jokes and gibes refrain.
'Tis true the treatment was the same
For nearly ev'ry ill—
A venesection, then a purge
With good mercurial pill.

Or else the milder calomel
With ipecac, perchance;
And steaming teas, and sweats, and such
As would the cure enhance.
But what was done was done right well—
No hurrying, nervous haste—
The doctor often stayed right by
And saw the blister placed.

For men and things in those old times
Moved slowly and sedate;
They'd time to think and ponder well,
And went a sober gait
But nowadays 'tis different, quite—
This age is run by steam—
Electric wires are cobwebbed o'er
The town, and land, and stream.

Ours is an age of rapid speed,
And none can be too fast;
It's "every fellow for himself,
The devil take the last."
We jump from bed; we bolt our meals;
We run to catch a car;
We scorch the streets, or drive like mad;
We hustle, near and far.

And, like the rest, the doctors, too,
Are bound to keep the pace,
And some are "rushed to death," they say,
When asked "How goes the race?"
The gravest case is grasped so quick
It makes the patient wink;
A snap-shot diagnosis—then,
Some tablets, white or pink!

'Tis even said that some will run
From early morn 'till late
To patients, that, tho' they be few,
Receive attention great!
And surgery, O, noble art
And science! has become
A rapid business, or, at least,
'Tis practised so, by some.

In larger towns the ambulance
May oft be seen to-day,
With clanging gong and equine dance
And uniformed display.
E'en in Chicago's busy streets,
The doctor, so 'tis said,
Has right of way o'er everything—
The living or the dead!

He scoots along the boulevard,
Or threads the tangled maze;
He goes so fast that scorchers, e'en,
Slow up, and pause, and gaze.

*Read at the First Annual Festival and Reception given by the Physicians' Business Association of Chesaning, Mich., Sept. 28th, 1897.

So, hurrying on, with anxious brow,
The doctor, up to date,
Must hustle in and hustle out,
For fear he may be late.

But yet, sometimes, were truth but known,
And facts brought forth to view,
The man who makes the greatest rush
Has least of work to do!
However, that does not excuse
A doctor who is slow;
One must be up and dressed betimes—
For high as well as low.

The only man who cannot get
Prompt treatment for his ills,
Is he who owes and will not pay
Long-standing doctor bills.
Too long he's scorned the mild request
To "call and settle soon;"
He'll get another doctor, for
He changes ev'ry moon.

But we've a little list,† you know,
For fellows who do that;
He'll soon find out, beyond a doubt,
He's talking thro' his hat!
So, after all, 'tis said with truth,
Our method is the best—
The people press the button and
The doctor does the rest.

Owosso, Michigan.

Correspondence.

NEWPORT, RHODE ISLAND, MEDICAL SOCIETY.

Editor MEDICAL AGE:

As chairman of a committee of the Newport Medical Society I am directed to call the attention of all medical societies and journals to the following:

At a regular meeting of the Newport Medical Society, held Wednesday, May 19, 1897, the following resolutions were unanimously passed:

Resolved, That it is the opinion of this Society that Congress should change the existing laws regarding the employment of physicians on steamships and other vessels, and, with a view to the attainment of that end, the Society deems it advisable that the words "other than ferry boats" be inserted between the words "vessels" and "carrying," which are in the eighth line on the forty-ninth page in Section 5, Chapter 6, Title Forty-eight of the "Laws Governing Steamboat Inspection Service, Revised Statutes of the United States as amended by various Acts of Congress, printed 1896." Also that the word "immigrant" in the ninth line of the same page be erased. Also that the words "or passengers other than cabin passengers" in the ninth and tenth lines of the same page (forty-ninth) be erased and the words "lying between one inspector's district and another or going foreign" be inserted instead. Also that the word "fifty" be erased and the word "thirty-five" be substituted for it in the tenth line of the forty-ninth page. Also that in the twelfth line between the words "articles" and "and" should be inserted the words "and not required to do other duties than those usually required of a ship's surgeon on government vessels." Also that after the word "dollars" in the twenty-second line on the forty-ninth page should be inserted the words "for each trip or voyage."

Resolved, That the President and Secretary of the Newport Medical Society forward to the President of the American Medical Association a copy of these resolutions, and urge in their communication to him the expediency of urgent action on the part of the delegates to the American Medical Association, and also that each delegate shall use all influence with his individual congressman to attain this very desirable result.

A copy of these resolutions was forwarded to the President of the American Medical Association, with two copies of the "Laws governing the steamboat inspection service," one for the President and one for the Secretary, both marked. Our delegate, Doctor M. E. Baldwin, delivered the resolutions to the Secretary, who informs us that, owing to great pressure of business, they were not brought before the Association by him, expecting that our delegate would present them; and as our delegate expected that they would be presented by the Secretary, they were, unfortunately, not presented at all.

At the regular meeting of the Society held the 21st of July, Doctors V. Mott Francis, H. R. Storer, F. J. Davis, C. W. Stewart, and M. E. Baldwin were appointed a committee to draw up a letter containing the above resolutions and also to give some data concerning this important matter and to forward them to all medical societies and journals. We can only say (what our Society has often said before) if this great event be brought about that it will give employment to hundreds of competent physicians, open new paths to the younger members of the profession, and prove of great practical usefulness and benefit to the traveling public.

On the steamboats between Fall River, Mass., and New York City there are sometimes as many as a thousand passengers on the boat. Although the trip lasts, as a rule, only nine hours, still there are times when the boats are delayed for hours, and it seems that it would be more in keeping with the humanity of the times to have a physician on the boat than to have the expense of canary birds and brass bands, and that the money would be much better expended if such were the case. All the steamboats on the Sound, on the Great Lakes, on the long rivers where passengers are often for days without medical aid, practise the same economy. Our seagoing steamers running South as a rule have no physician on board. Some employ the device of employing the purser as surgeon, and when he is pressed, owing to his numerous duties, appoint at times a man who is not any more qualified than the purser to act as surgeon's assistant. Such steamers as those running from Philadelphia to Portland carry often thirty or forty passengers and a crew of twenty or more, and being often out three days should have a physician on board. A passenger on one of the lines running South was obliged to act for the company, as a man had a severe injury and could not be put ashore for three days. The passenger was fortunately a surgeon.

† Delinquent list.

Again, it is very common on all the steamboats to rely upon traveling physicians to care for sick seamen and passengers. They receive no compensation for their services and are not even returned their passage money. Such conduct is inexcusable besides being a great wrong to the public. Invalid physicians, traveling for their health, have been called up to attend to cases and have suffered greatly in consequence of being disturbed of their night's rest. Cases of childbirth on steamers are not infrequent, and the chairman of this committee had a case of childbirth and was up all night, and on another occasion passed a whole afternoon and night with a patient (one of the waiters) who was suffering from a nearly fatal attack of œdema of the glottis. In neither case was any remuneration given nor was the passage money returned. Another member of this committee has often had to perform duties not only of a medical character, but those of a surgeon. The profession is injured in this way, and it is absurd as well as injurious to the profession to have pursers act as surgeons or surgeons perform duties of a clerkly character, and none of which belong to the duties of a ship's surgeon.

We, therefore, protest against the existence of this abuse any longer, and we call upon our medical brothers throughout the land to aid us in any and all ways to abolish this abuse, to call upon their senators and representatives to aid them in so changing the laws that such abuses shall be abolished and that the long-suffering traveling public and the crews of our vessels shall have at least as much protection as the whalemen have on British ships.

The chairman of this committee called attention to this fact in an article published in the *Newport Daily News*, in 1885. The importance of having a regularly educated physician on board in case of an epidemic of cholera, yellow fever, or other plague, is beyond dispute to any intelligent mind and should be looked upon as an absolute hygienic requirement.

V. Mott Francis,
President of the Newport Medical Society.
M. Baldwin,
Secretary.

Newport, Rhode Island,
September 11th, 1897.

UNMARRIED PHYSICIANS.

All things being equal, the unmarried man has many advantages over one who is married, and if possessed of equal health, industry, ability, and opportunity, is the better doctor of the two. He is his own master; his mind is not occupied by domestic cares; his interest is not divided between his work and his family, and his time can be wholly devoted to the study of disease and the care of his patients. Matrimony will not increase confidence in professional ability, and until it proves itself a stimulus to mental development or a moral safeguard, it cannot possibly enter into the question. Certainly the history of medicine has not shown that the men who are married are either wiser or better than those who are single.—*Richmond University Bulletin.*

Just the same, the unmarried physician seldom attains foothold as a confidential family attendant.

THE MEDICAL AGE.

A SEMI-MONTHLY REVIEW OF MEDICINE.

—PUBLISHED BY—

WILLIAM M. WARREN, Medical Publisher, Box 470.

All communications regarding papers, reports, etc., should be addressed to the Editor of the Medical Age, P. O. Box 470, Detroit, Mich.

Matters relating to advertising space, etc., to be addressed to the publisher, William M. Warren, Box 470, Detroit, Mich.

The editor cannot engage to return rejected manuscripts or to correspond with the writers thereof, unless such are accompanied by sufficient postage.

DETROIT, MICH., OCTOBER 25th, 1897.

Editorial.

HYDROPHOBIA VS. COMMON SENSE.

(*Continued from page 595.*)

More than "*three score and ten*" diseases peculiar to humanity are constantly being mistaken for evidences of hydrophobia, those of brain and nerve origin more especially. Usually in any malady it is all-sufficient to receive a suggestion of animal (canine) infection in connection therewith, to secure the fell verdict of "hydrophobia," when a fatal result is necessarily a foregone conclusion—the unfortunate invariably succumbs, a victim to his own fears and those of his indiscreet friends, attendants, medical advisers, etc. Under these circumstances, then, particularly considering the meagre knowledge at his command, the physician who *ever* permits the fatal word *hydrophobia* (or rabies) to escape his lips, no matter what his individual convictions, save in the sanctity and secrecy of professional consultation, is *guilty of gross criminality!*

The universal ignorance of the medical profession—general, veterinary, or special—is nowise remarkable, since the little that has accrued to the knowledge of the disease during more than two thousand years tends to cast discredit upon its existence as a specific disorder. The great Billroth declared he had viewed scores of cases termed hydrophobia, but was in doubt whether, after all, he had ever seen a genuine case: "in not a single instance, either before or subsequent to death, could it be definitely established such was a veritable rabies." If this is the verdict of the greatest surgical pathologist of the age, a man whose medical erudition is the glory not alone of Austria, but of the

whole world, what must needs be the value attaching to the contrary assertions so positively put forth by the average practitioner?

Unfortunately for both the human and the canine race, the word hydrophobia inspires the wildest terror, conducing to mental panic, and that too in spite of the fact the disease manifests *no symptom or train of symptoms peculiar to itself*, not even fatality, and it presents no phenomena that do not with equal certainty obtain to scores of simple maladies. Post-mortem evidences are equally fallacious, even in the hands of the most expert. The teachings that are relied upon are for the most part mere negations that with equal truth apply to a majority of the diseases flesh is heir to; and the morbid features upon which greatest stress is laid invariably are developed in the dog as a sequel to *excessive fatigue*, *abject fear*, *mental torture*, and *overheating!*

Upwards of one hundred and twenty diseases afflicting canines are continually mistaken for rabies: First, because no one knows what rabies *really* is: Second, for the reason but trifling attention has been given to the pathology of the dog, the efforts of veterinarians being confined for the most part to creatures deemed of greater importance and higher domestic and economic value. Among the most common maladies of the dog thus mistaken may be enumerated: Intestinal parasites, from which no canine is wholly free; foreign bodies in the stomach and intestines, such as bones, sticks, straw, spools, string, feathers, coals, buttons, leather, marbles, excrement, and other extraneous articles, which are almost always existent on post mortem, a fact generally overlooked by all classes of medical men;* all the array of throat, nose, eye, ear, heart, lung, liver, kidney, rheumatic, muscular, intestinal, skin, and generative diseases; starving and improper food; earache, toothache, abscesses, fevers, *epilepsy*, St. Vitus' dance (chorea), blood-poisoning, brain inflammations and tumors, certain mineral and vegetable poisons; and finally the whole category of nerve and mental maladies to which the canine race is *much more* subject than man—a fact almost unknown or wholly ignored!

A dog under torture and persecution, or suffering from hallucination and the "tender mercies" (!) of the rabble or mob, is no way responsible for his acts, and under such circumstances, or when violently enraged, his bite is especially prone to develop blood-poisoning as a sequel. It is a well known physiological fact that the saliva of all creatures, more particularly the carnivoræ and omnivoræ, contains poisonous germs that may be instantaneously and abnormally developed under powerful emotion or other causes that stimulate the nerve centers from whence is derived the power to secrete such fluid. Injuries inflicted by the teeth of healthy human subjects have more than once proved fatal to the individual so wounded; and undue excitement has been known to so develop poisonous qualities in the breast of the mother that the child on partaking of sustenance therefrom was immediately stricken with death!*

Per contra, a wound inflicted upon the household pet by some stray canine is no warrant for the sacrifice of either. Dogs are jealous creatures, and one and all are given to resenting patronage or assumption of authority or superiority on the part of others of their kind; and especially is this true of vagrant street curs, the pariahs of canine society. How often one sees two strange dogs meeting, their tails stiffened, noses touching, and after growls interrogative or insulting fall to fighting. Is there any doubt that they bandy epithets, or indulge in criticisms that if uttered by their biped owners would provoke wrath?

After more than a quarter of a century's experience as physician, student and teacher of comparative physiology and pathology, and likewise as dog owner and breeder, the writer must confess to never have viewed a case of *true* rabies. During this period, however, he has been brought in contact with some seventy odd cases of supposed hydrophobia in dogs, in several instances the un-

*Spitzka declares in all his experience in the physiological laboratory he never found a canine stomach that did not contain foreign bodies, and this the writer can corroborate after more than two hundred examinations; this condition is undoubtedly a sequel to playing the part of host to numerous intestinal parasites.

*Carpenter's Physiology.

fortunates, alive or dead, being sent to him by veterinarians for inspection, and in *every instance* careful examination and research revealed some commonplace malady. A few years since, at the hands of one of the most eminent veterinarians in America, he received the heads of three dogs, killed by his order as "unmistakably rabic," and the former now declares he will never believe in rabies as a disease *per se* again. One head revealed a deep-seated brain tumor containing a leaden missle, the result of an old gunshot wound; the other two exhibited brain abscesses as the sequel of the ear diseases vulgarly called "canker."

Of half a dozen cases in the human, three were marked by fatality, but the autopsy gave conclusive evidence death ensued as the result of commonplace though unsuspected diseases. The three recoveries are so instructive they are presented in brief outline:

A gentleman forty-five years of age was bitten six months before seizure by an Irish setter. Hydrophobia (fear of water) and aerophobia (fear of air in motion) most marked and intense; total inability to swallow. All the evidences accredited to rabies were manifested in most profound manner. Patient made a remarkable recovery when it was discovered that the offending canine *had not* been killed, as promised by his owner, but on the contrary was in the best of health. Had the dog been sacrificed as demanded, the sequel would assuredly have been less fortunate. In this case were involved the opinions of some thirty medical gentlemen, embracing the best talent of the State, as well as the verdict of a celebrated neurologist of an Eastern city.

A lady of New Orleans, La., aged twenty-one, was bitten through the thumb by a pet terrier, the wound involving the root of the nail. Three weeks later intense pain was felt in the part bitten: the cicatrix reopened, the arm swelled, the gland thereof to the shoulder became inflamed, with red lines radiating upward from the thumb. Hydrophobia, aerophobia, abhorrence of food, throat spasms, etc., most intensely marked, while the sufferings and the nervous condition of the patient beggared description. Physicians at home and abroad unanimously concurred in a verdict of "rabies," and demanded the death of the dog. But the father, a retired physician, and moreover something of a skeptic as to the existence of such a disease, declined "to sacrifice both girl and dog to what may be but a superstition, and at best is only an unproven fact." After lingering a fortnight in "trembling balance 'twixt life and death," the young lady recovered, while the dog died six years later of old age, having never given evidence of any malady more serious than temper.

A stout, sensible Irishman of thirty-eight or thereabouts had been bitten by a pet fox, and his case was pronounced a "veritable rabies" by a score of physicians. Careful inquiry precluded the supposition of infection of the animal, as it was a mere cub that had been brought up from nurslinghood with no opportunity for more dangerous associates than rabbits and guinea-pigs; on killing one of the latter, it had been relegated to close confinement, and thereupon began to give evidence of temper and paid the penalty of wounding its owner with its life. On examining reynard's body, the most careful and critical examination failed to reveal any wound or scratch through which rabic or other infection could have entered. A candid statement of the facts, along with the assurance rabies was positively never of spontaneous origin and invariably a product of direct infection, caused the patient to lose his rabic symptoms, to dismiss his fears and also his soul's adviser, for being a Romanist he had already begun the final "duties." This case was as well marked as any ever laid down in text-books, and the man was not a little chagrined to think he had been imposed upon and brought into the very jaws of death, as it were, by the fears of irresponsible individuals superimposed upon his own morbid imaginings.

In conclusion, a few simple axioms, if heeded, will in the great majority of instances allay fear and quell the senseless epidemics of *rabiphobia* that threaten from time to time:

Rabic dogs do not fear, but court, water:

Rabies can never arise spontaneously either in animals or man. The absence of *recent* wounds and the good health of the creature inflicting the bite are alike evidence of the non-specific character of the disease:

Wounds inflicted by the teeth of non-car-

nivorous creatures are *never* rabic, though a blood-poisoning may be induced,—man cannot communicate the disease to other human beings nor to animals:

The saliva of truly rabic carnivora *alone* is capable of inducing rabies:

Excessive saliva in any creature, more especially dogs, is always induced by an affection of the mouth or throat—is the universal sequel of toothache, of inability to swallow from any cause, of paralysis, of throat abscess; paralysis independent of rabic condition is a sequel to numerous local, brain, and nerve maladies; twitching of eyes, of eyelids, of lips and muscles, lolling tongue, indrawn tail, updrawn flanks, drooping head, slinking gait—one and all should be included in the same category.

Safety lies in preserving the life of the suspected canine, and sequestrating for observation; by premature death the only evidence whereby rabies can be definitely and with certainty established is destroyed.—Muzzle the creature and examine for recent wounds: if none are exhibited, fear is idle; if it evinces good appetite, and if it partakes of food freely on and after the fourth day, it is not rabic; if it dies without paralysis it is not rabic; if it succumbs to paralysis the chances are still a thousand to one its death was due to some natural cause; if it falls into convulsions and froths at the mouth, it is an epileptic and an object of commiseration—ninety-nine of every hundred dogs pronounced "mad" are epileptics or choreics, and dogs with "fits" are *positively* never rabic; if after ten days' confinement the suspected animal evinces a cheerful disposition, there is no danger whatever, and it should be released;* when death supervenes critical examination of the body—the brain, viscera, etc.—should be made by a competent pathologist to determine if there was *cause for death aside* from rabies!

The human race, suffering from rabies, *do not* howl, whine, bark, or exhibit other canine characteristics or peculiarities, any more than do cats, fowls, sheep, cattle, etc.; such phenomena are conclusive evidence the malady is—HYSTERICAL!

Intolerance of light and of air in motion, fear of water and bright substances, and spasms of muscles of the throat and neck, far from constituting specific evidence, are common in diphtheria, croup, goitre, sore throat, lockjaw, pregnancy, hysterics, ear abscess, hayfever, poisoning by certain mineral and vegetable substances; from the use and abuse of narcotics, sedatives, and alcoholics; from cancerous affections, certain maladies of the internal ear, the eye affection known as glaucoma, and diseases peculiar to sex; and a multitude of brain and nerve maladies.—In no instance would these symptoms excite special comment or alarm were not the dog linked therewith as a factor.

Error in judgment is the almost inevitable result of accepting mere negations for their antithesis. Careful examination of the evidence laid down for the distinction of rabies reveals little aside from mere negations. Until death ensues the weight of evidence is always negative; when dissolution follows it is *very* far from being presumptive of the positive!

Since less than three per cent. of infected canines ever contract the malady, the danger to man is several hundred times less than from scarlatina, measles, quinsy, ague, and a host of simple maladies. As Professor Charles Bell Taylor remarks, "It is less than one in a million, less than being kicked to death by a horse;" to which might be added it is less than the gallows! Atop of all, the writer can say after examining as thoroughly as possible the history of every case of rabies reported as occurring in North America during fifty years (and they number above a thousand) he has been unable to find *even one case* that is not open to the gravest suspicion as to error!

* These rules apply to the dog that has inflicted a bite; but one that has received a suspicious wound should be isolated and confined for a month or six weeks, and that too in a place where quiet is assured.

EDITORIAL NOTES.

A Foolish Scare.—

By way of the State Department at Washington comes the report that there is danger of the bubonic plague being introduced into the Sandwich Islands from Japan, where it is

claimed the disease has been brought from Formosa. It is added: "The United States has been warned that its assistance will be required to prevent the landing of infected Japanese, if their demand for admission to Honolulu is enforced by a display of arms such as has just been threatened."

This bears on its face all the evidences of a canard manufactured for political purposes. The plague has not existed in Formosa for a number of years; neither has it appeared in Japan.

If the political liars were all *corralled* we do not think science would suffer in the least.

The British Medical Association and Canadian Journal Enterprise.—

Our contemporary, the *Dominion Medical Monthly*, is to be congratulated on having presented the *only* original report of the British Medical Association. With great unanimity several other Canadian journals —the *Montreal Medical Journal*, which published with the consent of the Association, being a notable exception — seem to have plagiarized the Daily Bulletin of the Association.

We regret to see that some of our contemporaries on the hither side of the border have not been above this same petty measure, even some who consider themselves "medical newspapers." The old saw, "honesty is the best policy," should be applicable to medical journalism as well as other walks of life.

Mr. Ernest Hart.—

This gentleman, the well known editor of the *British Medical Journal*, has just been obliged to submit to amputation of the leg on account of necrosed bone—the latter is supposed to have arisen as the result of glycosuria, with which he has been afflicted for many years.

Decollete.—

A lady once went to Dublin Castle in such very full dress that more bust than barege was visible. "Did you ever see anything so unblushing?" said some one to Archbishop Whateley. "Never, since I was weaned," replied the wit.

Items and News.

Churched Twice in One Week.—

Attention has been directed to a paragraph in the *Manx Church Magazine* for January, 1893. An extract from a parish register dated 1660 is there given as follows:

> 1660. Rob. Cottier's wife was delivered of a child which was baptized upon the Monday and she came to the church to be churched upon the Wednesday next after, and after returning home she fell in labour and was delivered of another child, and came to be churched upon the Saturday next after in the same week. Churched twice in one week. This I certify to be the truth.
>
> EDWARD CROW, *minister*.

It will be seen that the exact interval between the two confinements is not given. For all the register directly says to the contrary the child whose baptism is mentioned might have been a year old, or even a person "of riper years;" the first churching might also have been left somewhat in arrear; but evidently the probability is that Edward Crow was somewhat struck with the fact that after the birth of a mature, or premature, infant a woman, without renewed coitus, may in the course of one, two, or three months give birth to another child, which may be mature or premature. There are three classes of such cases. In twin pregnancies after one child is born the other may be retained some weeks or months and then be born; again, a woman may have a double uterus, in each side there may be an ovum, and each side may expel its fœtus at a different time; lastly, it may be a genuine case of superfœtation. Coitus taking place in the early months of pregnancy, a second ovum may be fertilized, and the children be born at different times. A case recorded by Dr. Bonnar, quoted in Playfair's "Midwifery," is a good example of this class. A child was born on September 12th, 1849, and another on January 24th, 1850—that is, about sixteen weeks after the first. Both children survived, so that the second child could not have been conceived after the birth of the first or we should find a fœtus of about sixteen weeks' development born alive and surviving, which is impossible. On the other hand, the case could not be one of twins, the first of which was expelled prematurely, because the first born who survived would be, on that hypothesis, of only about five months' development.—*The Lancet* (London).

Inquest on a Centenarian.—

To hold an inquest on a centenarian is as novel as it is rare, but with the law as it

stands the inquiry into the death of Mrs. Mary Neighbour, at Ashurst Wood, Forest Row, Sussex, England, on September 7th last, was a matter of compulsion, the direct cause of death being the result of a fall. The old lady, who was but three months short of her 101st birthday, resided in a humble cottage with a granddaughter. After taking her tea on August 30th, in the temporary absence of her granddaughter, she got up from her chair. No one saw what happened, but from the fact that the chair recently occupied by the granddaughter had been thrown over it was thought that she had rested her body with her hand on the chair, which, not being evenly balanced, fell over, throwing the centenarian violently to the ground, her head striking the fender. A sudden and unexpected shock of this kind was quite sufficient to bring about her end somewhat sooner than would otherwise have been the case, for, as was only naturally anticipated, medical evidence showed that deceased was suffering from marked senile decay. She was unconscious when picked up from the floor, and remained in this condition till the following Sunday afternoon. Her children (four by her first husband and seven by her second) and their descendents number 303, of whom some 200 are still living.—*The Lancet* (London).

He is Appreciated!—

The following is an exact copy (aside from name and residence) of a letter I lately received:

Somewhere, Some State,
April 20, 1897.

DEAR DR. I see in the —— Number of —— you have Bin given Phasealus nana For Weak Sexual Pour. I have a man aged 52 that has no dripen but has weak nervous and losed Sexual Pour will you please give me the No. of Doses you gave a day and how many Drops at a Dose and how long to give the med. and oblige ——, M.D.
Please let me hear Sune. By By.

He sent a stamp, which is more than some do who write.—A. M. CUSHING, in *Homœopathic Recorder.*

The Popular Song!—

A man has written a song called "Teach Our Baby That I'm Dead," and a quintet is singing it at a local theater. Unfortunately the whole thing is simply make-believe; the man who wrote the song is not dead, and there seems to be no hope of outraged Nemesis attacking the quintet that sings it. The song is about a man who is going to the penitentiary. It is understood that if it proves successful it will be followed by "Turn the Lawn Hose on My Grave on Sundays Only," and "There's Nothing Left of Darling but a Little Sesamoid." These are two very affecting songs, which have been delayed in publication because of a fear of turning too much gloom upon the earth at once.—*Chicago Record.*

Harsh, but in a Measure Just!—

Most of the secret mixtures used in medicines are used by regular physicians. They wander from fad to fad, and few of them know even a little about the composition of the shotgun mixtures that they prescribe daily. Yet, in the eyes of many, all who do not wear their distinguishing button are lost in darkness.—*The Gleaner.*

To Protect Steel from Rust.—

Professor Olmstead, of Yale, recommends rosin melted with six or eight parts of lard as the best protection for iron or steel instruments, or implements of any kind, against rust. Objects anointed with it will remain free from corrosion for years.

Spirit-of-Nitre Fire.—

Recently in a chemist's shop at Hull, a bottle of sweet nitre, on a shelf in the back room, exploded from the heat of the gas. The stream of burning liquid set fire to a table, and an assistant had a narrow escape. —*Chemist and Druggist.*

Appendicitis.—

Indications all point to another fatal epidemic of appendicitis in the hospitals. Walk up, gentlemen (women never have it), and get the latest cut on the bias operation. It's a sure thing in about a week.—*Denver Journal of Homœopathy.*

Camphor Cultivation in Florida.—

It is the opinion of far-sighted men who have lately given the subject much attention that the cultivation of the camphor trees in Florida may become of greater importance than that of the orange or any other crop.—*Medical Times.*

The Brandt Method.—

This consists essentially in *friction* baths at a temperature of 65° F. every three hours, when the temperature is 102.5° or higher. It is the safest, most grateful and most successful single means of combating typhoid fever.

Chronic Leucorrhœa.—

The best constitutional remedy is arsenic in small doses.—THOMAS MORE MADDEN.

Book Reviews.

SEXUAL DISORDERS OF THE MALE AND FEMALE. By Robert W. Taylor, M.D. Cloth; 8vo; pp. 451. Price, $3.00. Lea Brothers & Co., Philadelphia.

It is generally acknowledged that the proper regulation of the sexual functions in either sex is most essential to well-being, consequently it is a matter of surprise that deeper study has not been devoted to this topic. Advertising charlatans long since learned how numerous are the cases of sexual disorder, real and imaginary, and their success in largely appropriating to themselves these patients is in great measure due to the comparative silence with which this specialty has been treated by the regular profession. Doctor Taylor, however, presents his personal experience, which as the result of his well known ability as a genito-urinary and venereal specialist has brought him an extensive practise among those suffering from disorders of the sexual functions. The prevalent lack of accurate knowledge as to the pathology and ætiology of diseases of this nature led him to undertake exhaustive investigations in lines not hitherto generally pursued, with the result of exposing most that is false in accepted beliefs, and in many instances enabling him to indicate new methods of relief. Symptoms are made secondary to the various conditions which give rise to them, and the consideration of these conditions places it in the power of the practitioner to rationally treat an entity and not pursue the shadow.

The author of this work has followed the same practical lines which have made his "Pathology and Treatment of Venereal Diseases" necessary to every general practitioner.

LECTURES ON MALARIAL FEVERS. By William Sidney Thayer, M.D. Cloth; small 8vo; pp. 326. D. Appleton & Co., New York.

This is a very valuable contribution to the study of malarial fevers, and is apparently a summary of the lectures delivered by the author at Johns Hopkins University.

The first chapter deals with the Development of the Pathogenic Agent of Malarial Fevers, and then follows Methods of Examination of the Blood and Descriptions of Hæmocytozoa; General Conditions Under Which Malarial Fevers Prevail; Clinical Description of Malarial Fevers; Types of Fever with Period of Incubation; Intermittent Fevers—Tertian and Quartan, etc.; Æstivo-Autumnal Fevers with Long Intervals; Combined Infections; Masked Malarial Infections; the Renal Secretions in Malarial Fever; Sequelæ and Complications; Morbid Anatomy; Cirrhotic Processes and Malaria; Malarial Pigment. The last two chapters are in a measure a summary of the conclusions drawn from the foregoing—viz., general pathology, infection with multiple group of parasites, mechanism of defense, phagocytosis, prognosis, treatment and prophylaxis. Altogether there are twenty-two plates descriptive of the text.

This is a valuable work and of especial interest to those who desire to study malarial fevers, and while we do not personally agree with the author in all his conclusions, the work is one which medical men cannot afford to ignore.

THE ORIGIN OF DISEASE. By Arthur V. Meigs, M.D. Cloth; 8vo; pp. 229. The J. B. Lippincott Co., Philadelphia.

Much of the progress of medicine in the past fifty years has been due to specialism. Well qualified men have devoted themselves to restricted fields, and important discoveries have been made that would not have been possible had they extended their labors more widely. The advantages of specialism are patent; but it is certain that a wide divergence of knowledge also results from it, and that facts which belong together are often observed by persons whose lines of research lead them so far apart that for a long time the conclusion remains undiscovered. There is great need for something to counterbalance this inevitable evil result, and to bring together the facts which isolated are useless. The relation of clinical medicine with pathology is obvious, and there can be no doubt that they are separated to the disadvantage of both. Specialism therefore has gone sufficiently far, if not altogether too far, in medicine, and it is time that something be done to connect the various disjointed threads of knowledge, the true value of which can never be known until they are woven into a complete whole. Impressed by the separation of clinical medicine from pathology, the author has endeavored to bring them nearer together, and this book is the result of that effort.

A MANUAL OF MEDICAL JURISPRUDENCE. By Alfred S. Taylor, M.D. Cloth; 8vo; pp. 831. Price, $4.50. Lea Brothers & Co., Philadelphia and New York.

This is an old and standard work, and the present American is from the twelfth English edition, besides possessing the advantage of a thorough revision by Clark Bell, Esq., of the New York bar. The new edition upholds fully the reputation attained by its predecessors, which have always been considered final authority by the courts of all English-speaking countries—a fact that is of very great importance for medical men, since in the event, more or less certain to occur, of being summoned as experts or witnesses in medico-legal matters it strongly behooves them to prepare according to the principles and practise everywhere accepted. It may be added that no work has attained so high a standard in this respect.

The fact also that the American edition has been carefully revised by Mr. Clark Bell, editor of the *Medico-Legal Journal*, renders it certain that the medical profession will find the work *au fait* as re-

gards legal practise in the United States. It may be added, moreover, that no work of this character that has ever emanated from the press is so complete and thorough in its consideration of poisoning. It has the further advantage of being concise.

APPENDICITIS AND ITS SURGICAL TREATMENT. By Herman Mynter, M.D. (Copenhagen). Cloth; 8vo; pp. 303. Price, $2.00. The J. B. Lippincott Co., Philadelphia.

The author has attempted in this work to sift the evidence and weigh the testimony for and against the operative treatment of appendicitis. While in this country the disease is considered an almost exclusive surgical lesion, the same is by no means true abroad. In Europe there are scores of men of undoubted ability and authority, and whose opinions are entitled to the most respectful attention, who operate only in exceptional cases and advise against surgical interference as a standard treatment. Doctor Mynter has, however, after a careful study of a large number of foreign and American authors and of numerous statistics, arrived at the conclusion that appendicitis is after all a true surgical lesion to be treated by surgical means, and that medicine is unable to prophesy as to the result in a given case, or to prevent gangrene and perforation with resultant fatal peritonitis. The medical treatment he declares is a "makeshift, uncertain in its results, unable to prevent the often fatal complications, and therefore dangerous."

A TEXT-BOOK OF THE PRACTICE OF MEDICINE. By James M. Anders, M.D., Ph.D., LL.D. Cloth; 8vo; pp. 1287. Price, $5.50. W. B. Saunders, Philadelphia.

The important additions made within the past few years to our knowledge of the practise of medicine in general and of the diagnosis and treatment of disease in particular have created a need for thoroughly up-to-date text-books by authors of wide experience. The present work gives in a comprehensive manner the approved results of the latest scientific studies bearing upon medical affections, and portrays with rare force and clearness the clinical pictures of the different diseases considered. The practical points, particularly with reference to diagnosis and treatment, are not only completely stated but are presented in a most convenient form; for example, the differential diagnosis has in many instances been formulated, no less than fifty-six diagnostic tables being given throughout the work.

BACTERIOLOGICAL TECHNIQUE. By Frank B. Mallory, A.M., M.D., and James H. Wright, A.M., M.D. Cloth; 8vo; pp. 397. Price, $2.50. W. B. Saunders, Philadelphia.

This work is especially designed for practical use in the bacteriological laboratory, both as a guide to beginners and a source of reference to the advanced; it will also meet the wants of practitioners who do general pathological work.

At the outset the authors present a consecutive statement of the methods employed in laboratory work so as to avoid the repetitions that necessarily occur when the three usual divisions of the subject are separately considered. Besides the methods of examinations post mortem and the bacteriological and histological investigations connected therewith, especial methods employed in clinical bacteriology and pathology are fully discussed.

In the portions devoted to bacteriology and to pathological history no attempt is made to an exhaustive collection of methods and formulæ, but merely to select those which have been found of the greatest practical service.

TREATISE ON CLINICAL AND OPERATIVE GYNÆCOLOGY. By S. Pozzi, M.D. Cloth; 8vo. William Wood & Co., New York.

This is the third and latest edition of this well known work, which has been carefully revised, with important additions, and finally is translated and printed under the personal supervision of the editor of the *American Journal of Obstetrics*.

Not only Doctor Pozzi's world-wide reputation, but the easy style, complete scope, and, above all, the essentially practical character of his pen, have made his works standards both in America and abroad. It is rare indeed that is seen a treatise on any subject which covers the ground so concisely and so thoroughly, both as to the topics embraced and also to the complete care with which each is treated. This volume is not only a complete compendium of the subjects upon which it treats, both medical and surgical, but reflects the very latest status of the best theory and practise.

ABOUT CHILDREN. By Samuel W. Kelley, M.D. Cloth; 8vo; pp. 180. Price, $1.25. Medical Gazette Publishing Co., Cleveland.

This volume embodies a series of six lectures as given by the author to the nurses in the training school of the Cleveland General Hospital. They also contain much information that will prove of value to intelligent parents, teachers, medical students, and practitioners.

The author makes no pretense of the volume being a complete treatise either upon the diseases of children or of their nursing, though it is replete with knowledge that should be of use to all concerned in the welfare of offspring.

THE DEEMSTER. By Hall Caine. Paper; 12mo; pp. 361. Price, 25 cents. Rand, McNally & Co., Chicago.

This is No. 264 of the Globe Library, and is perhaps the best of Hall Caine's several works. The scene, as is usual with this author, is laid in the Isle of Man. It deals with the laws of this quaint island, ecclesiastical and criminal, and the hero is brought under the ban of both through his own

misdeeds, and later undergoes an expiation that would be impossible in any other part of the world. Like all of Hall Caine's works this is most thrilling, and holds the interest of the reader from title-page to finis.

THE SCIENTIFIC BASIS OF MEDICINE. By I. W. Heysinger, M.A., M.D. Cloth; 24mo; pp. 122. Price, 50 cents. Boericke & Tafel, Philadelphia.

This little brochure has been prepared for the purpose of pointing out both to the laity and the profession the supposed historical and scientific principles of modern physic as presented by Hahnemann. It is well worthy of perusal by any practitioner of medicine, as it bristles with many excellent points.

ESSENTIALS OF BACTERIOLOGY. By M. V. Ball, M.D. Cloth; 16mo; pp. 218. Price, $1.00. W. B. Saunders, Philadelphia.

The fact that this volume has reached its third edition is evidence that there is considerable demand therefor. It is in no sense a text-book, but merely an outline for convenience of the student, who it is expected will fill in here the knowledge derived from larger text-books.

GAINST WIND AND TIDE. By Nellie Talbot Kinkead. Paper; 12mo; pp. 214. Price, 25 cents. Rand, McNally & Co., Chicago and New York.

This is No. 262 of the Globe Library, and is a most interesting bit of fiction, though apparently modeled upon Amelie Rives' "The Quick and The Dead."

THE YOUTH'S COMPANION. $1.75 per year. Perry Mason & Co., Boston.

That this well known household paper has endeavored to increase its value and interest will, we think, be apparent from the list of authors engaged for the ensuing year: Honorable William E. Gladstone; the Duke of Argyll; Marquis of Dufferin and Ava; Marquis of Lorne; Honorable George F. Hoar; Honorable Justin McCarthy; Professor Nathaniel S. Shaler; Professor Rodolpo Lanciani; Professor John Trowbridge; John Burroughs; Percival Lowell; Lieutenant H. D. Wise, U. S. A.; Rudyard Kipling; W. D. Howells; Octave Thanet; F. R. Stockton: I. Zangwill; Max O'Rell; Lillian Nordica; Captain T. Mahan, U. S. N.; Lieutenant R. E. Peary, U. S. N.; Rear Admiral Pierce Crosby, U. S. N.; Admiral A. H Markham, R. N.; Poultney Bigelow; Henry Watterson—and yet this is not a tithe of those who will contribute.

As regards the editorial page, accuracy and impartiality are the qualities intended to be embodied. In political articles *The Companion* gives only a candid, complete and unpartisan presentation of facts and opinions—not to influence its readers, but to afford each one the best means of reaching a just conclusion for himself. Finally, in articles of information, correctness is sedulously sought.

In addition to the regular corps of editorial writers the publishers have now secured the aid of a group of eminent specialists who will contribute unsigned editorial articles upon their particular subjects. The list is too large for publication here, but the following may be mentioned: Elihu Thomson, the highest authority on applied electricity; Charles A. Young, the eminent professor of astronomy at Princeton; W. T. Sedgwick, the well known authority on sanitary science and professor at the Massachusetts Institute of Technology; T. C. Mendenhall, the physicist, and president of the Worcester Polytechnic Institute; Albert C. Stevens, the authority on economics and financial subjects, and likewise editor of Bradstreet's.

This new departure is made in order to give the editorial page still greater weight and authority in the future, and to make it of the utmost value to its readers. It is promised that the most important topics will thus be treated hereafter by some one who has gained distinction from his study of them, and who, were his name given, would be recognized by every one as an eminent authority.

In conclusion we may say that this publication is not what many may suppose, a paper for youth, but for the entire family. It is educational and entertaining alike to both old and young. It is an important factor in home life and family training, and its influence is always toward rightly developing and satisfying a taste for pure literature. The two halves of the globe are regularly searched for matter, and its contributors include not only statesmen, scientists, educators, etc., as just enumerated, but all the writers of fiction. Notoriously *The Youth's Companion* pays out larger sums for contributors than the best of the monthly magazines.

DONAHOE'S MAGAZINE. Price, 25 cents; $2.00 per year. Donahoe Magazine Company, Boston.

Mr. Henry Austin Adams, in his editorial review in the October issue, touches upon various subjects of living interest, and notes carefully the progress of the new movement at Washington for the higher education of Catholic women. Adele Bassford writes very entertainingly of the picturesque scenery of Mexico, the mode of life and character of its people; Rob Lear gives a sketch of "Old Georgetown," the famous Jesuit college; M. S. McGuirk makes some valuable suggestions about "Church Music;" Mary Daly treats of "Some Appreciations" of the poets and quotes from their best known works; Charles W. Currier writes of "The Brooks and Taneys;" Florence B. Seymour dwells on the growth of religious orders. The short stories are: "The Shadowy Third," by May B. Brown; "The Truth about Delling;" by Mary F. Nixon; and "The Scarlet Glove." Susan L. Emery writes of the tragic death of the Carmelite heroines. The poetry is by Mortimer E. Twomey, Albert Doyle, Marie J. Downing, and L. G. Kelly.

MCCLURE'S MAGAZINE. Price, 10 cents; $1.00 per year. The S. S. McClure Co., New York.

In the November number the public has the first authoritative account of Edison's latest—and apparently greatest—achievement. Having brought his enterprise to practical perfection a full account appears of the machinery he has devised and the great mills he has erected for digging up whole mountains, dumping, grinding, etc. This issue also contains the first of three papers by Ferdinand Brunetière, the French critic, and the editor of the *Revue des deux Mondes*, giving his impressions of America. There are three chapters from Mark

Twain's forthcoming book on his recent journey round the world. The first instalment of Charles A. Dana's "Reminiscences of Men and Events of the Civil War" appears in the November issue. There are the usual departments.

ARCHITECTURE AND BUILDING. Price, 10 cents; $4.00 per year. William T. Comstock, New York.

Table of contents for October 9th issue: "The American Institute of Architects and its Work;" "Editorial Notes and Comments;" "Myths, Superstitions, Romance, and Humor of Architecture" (XIX); "Thirty-first National Convention of the American Institute of Architects;" "Sanitary Floor Dressing;" "Societies;" "Industrial Progress."

The October 16th number opens with an editorial on "The Destruction of the Palisades." Other items are: "Vandalism in Mexican Antiquities;" "Editorial Notes and Comments;" "Uniform Safe Loads for Building Floors;" "Thirty-first National Convention of the American Institute of Architects;" "Mexican Federal Building;" "Current Notes;" "Industrial Progress."

THE AUK. Price, 75 cents; $3.00 per year. L. S. Foster, New York.

Contributions to the October number of this quarterly journal of ornithology are: "The Western Field Sparrow," by Charles W. Richmond; "Notes on the Birds of Fort Sherman, Idaho," by J. C. Merrill; "Birds Observed on a Collecting Trip to Bermudez, Venezuela," by William Henry Phelps; "The Horned Larks of Maine," by O. W. Knight; "Notes on the American Barn Owl in Eastern Pennsylvania," by J. Harris Reed; "The Terns of Muskeget Island, Massachusetts" (III), by George H. Mackay; "Critical Notes on the Genus Auriparus," by Henry C. Oberholzer; "Directive Coloration of Birds," by Ernest S. Thompson; "New Race of Spinus Tristis from the Pacific Coast," by Joseph Grinnell; "The Sitkan Kinglet," by William Palmer. There are the usual departments.

THE BADMINTON MAGAZINE. Price, 30 cents; $3.50 per year. Longmans, Green & Co., New York.

The contents for October are: "Cub Hunting," by C. E. A. L. Rumbold; "The Eton and Harrow Match," by R. D. Walker; "Tiros on Tyres," by Miss Muriel Gathorne-Hardy; "Shooting Partridges Under a Kite," by J. A. Milne; "In the Scent of the Sawdust: A Record Day," by G. Christopher Davies; "The Present Position of the Game of Croquet," by Leonard Williams; "A Little Knowledge," by Anthony C. Deane; "Chill October," by A. E. Gathorne-Hardy; "Golf and Character," by Garden G. Smith; "An Afternoon Ride in Florida," by Fanny Hughes D'Aeth; "A Wild Goose Chase," by J. N. Kirchhoffer; "The Griffin in India," by T. S. St. Clair; "Notes by 'Rapier.'" The illustrations are by G. H. Jalland, J. A. Walton, Henry Stannard, F. S. Wilson, A. de Bree, and E. Caldwell.

THE HYPNOTIC MAGAZINE. Price, 10 cents; $1.00 per year. Psychic Publishing Company, Chicago.

Volume III, No. 4 (October), is before us. J. A. Dickey writes of "Suggested Analgesia in Childbirth;" Edward B. Warman of "Fallacies of the Creed Called Christian Science;" William Lee Howard of "Demon Possession: Does it Exist in China?" "Telepathy or Clairvoyance?" is by W. J. Colville; "Report of the Kingston School of Suggestive Therapeutics," by C. O. Sahler; "Report of the Chicago School of Psychology," by Herbert A. Parkyn; "Hypnotism in Minor Operation," by J. Douglas Westervelt; "Reports of the Illinois College of Psychology," by Albert H. Burr, L. Perry Rice, and H. B. Soltan. There are also "Editorial Notes" and the "Inquiry Department."

VICK'S MAGAZINE. Price, 50 cents a year. Vick Publishing Co., Rochester.

Contents for October: "Begonias (Bedding);" "Buds and Fruit;" "Cama Lucien Linden;" "Cedrus deodara;" "Chrysanthemums;" "Colorado Blue Spruce;" "Coniferales" (No. 2); "Crocus for Bees;" "Earthworms and Potted Plants;" "Easter Flowers in New York City:" "Garden Curves;" "A Rose Hedge;" "Lily-of-the-Valley;" "Spirit Lilies;" "Mulching Raspberries and Blackberries;" "Nitrate of Soda and Aquatic Plants;" "Oriental Spruce;" "Pancratium ornatum;" "Golden-leaved Scotch pine;" "Dwarf Hardy Plants for Edging;" "Seed Pods;" "Spider Lily;" "Thunbergia as a Window Plant;" "Vines in Tree Form," etc.

INTELLIGENCE. Price, 10 cents; $1.00 per year. The Metaphysical Publishing Company, New York.

The October number of this new magazine opens with a paper on "The Dogma of Inspiration," by Henry Frank; "Social Relations of the Kosmos" is by C. Staniland Wake; "The Metaphysics of Courage," by Charlotte Hellmann; "Inductive Astrology" (II), by John Hazelrigg; "The Evolution of Consciousness," by William T. James; "The Songs of the Master" (II), by Charles Johnston; "Centres of Force and 'Being'" (XXV), by C. H. A. Bjerregaard; "The Infinity of the Soul," by Eugene Skilton. There are the usual poetry and departments.

DECORATOR AND FURNISHER. Price, 20 cents; $2.00 per year. The Art Trades Publishing and Printing Co., New York.

Table of contents for October: "Concerning Ourselves and The Artist Decorator;" "Guide to the Styles;" "Decorative Notes;" "Hall in a Seaside Cottage;" "A Virginia Manor House;" "Cyphers;" "Seen in the Shops;" "Mosaics, Roman" (continued); "Outside Wrought Iron Bracket;" "The Renascence of Wrought Iron;" "Artistic Industries of Kioto;" "All Blue is not Delft;" "Porcelain, Pottery, and Glass Notes;" "Art;" "Some Valuable Points for the Amateur Painter."

THE OSPREY. Price, 10 cents; $1.00 per year. The Osprey Company, Galesburg, Illinois.

In the October number Dwight W. Huntington writes of "The Sage Grouse;" "El Dorado County Notes" is by Wilfred H. Osgood; "Wintering of the Red-headed Woodpecker in Wisconsin," by Ludwig Kumlien;" "The Taking of a California Condor's Egg," by R. P. Sharples. There are the usual Editorial Notes, Recent Literature, General Notes, California Department, and Cooper Ornithological Club.

Therapeutic Brevities.

Anæsthesia.—The practise of giving either morphine, chloral, caffeine, alcohol, or similar drugs preparatory to anæsthesia is generally reprehensible, except in very rare instances, when their exhibition is indicated because of certain peculiar conditions. They seem theoretically correct and their administration is a routine practise, but careful consideration has impressed me with a desire to avoid these frequently mischievous and superfluous addenda. After the operation each has its clearly marked occasion for exhibition, but before the operator is the sole judge of their propriety.

Morphine increases the liability of asphyxia by strongly antagonizing the reflex phenomena, protracting the return to consciousness after the operation is completed, and thus frequently demoralizing the patient's friends, mayhap the surgeon too. Added to these undesirable sequelæ may be an unexpected opium or other narcosis supplanting the anæsthesia. Vomiting, at this stage especially dangerous, is frequently caused and invariably intensified by the practise, and a dangerous train of symptoms may be incited by even a relatively small hypodermatic injection. It obscures signs of the greatest importance to the administrator, prolongs unduly the stage of excitement, naturally followed by a corresponding degree of wasted natural force. The temperature sinks considerably lower than in ordinary anæsthesia, and headache and nausea are its most constant results. The only point which can in any way recommend it to the surgeon is that it lessens the amount of the agent necessary to produce anæsthesia, but, as pointed out previously, the successful anæsthetist can accomplish this without its aid. Koenig abandoned this practise after a deliberate trial to test its efficacy and desirability in thousands of hospital and army cases, concluding it to be either positively harmful or at best of no benefit.—NICHOL.

Alkaline Antiseptics in Surgical Work.—For a long time I have searched for an ideal antiseptic, one that was non-odorous, non-irritating, not poisonous. Having for some time used Carl Seilers' alkaline nasal antiseptic tablets with such good results in nearly all nasal discharges, I wondered why they acted so well, and finally, after testing discharges with regard to their reaction, came to the conclusion that it was the alkaline with the antiseptic that produced such results. And for the past two years I have used a solution of tablets of Seilers' formula as a last wash for my hands before an operation, as a wash to clease the parts to be operated on, and my instruments (previously sterilized) lie in a hot solution of the same; even my douching, during the operation and after, is of the same solution. The result is never any acid or irritating discharge, and no odor. My hands keep smooth and soft, a thing not possible with large usage of permanganate of potash, oxalic acid and bichloride. There is absolutely no danger of poisoning from the solution; and last, although not least, it preserves my instruments rather than injuring them. It is easily prepared and readily carried.

It prevents suppuration. I have but little, if any, after some operation that I usually expect profuse discharges from.—Correspondent of *Charlotte Medical Journal.*

Some Uses of Water.—A strip of flannel or a soft napkin, folded lengthwise and dipped in hot water and wrung out, and then applied around the neck of a child that has the croup, will usually bring relief in a few minutes.

A proper towel folded several times, and dipped in hot water, quickly wrung and applied over the site of toothache or neuralgia, will generally afford prompt relief.

This treatment for colic has been found to work like magic.

Nothing so promptly cuts short a congestion of the lungs, sore throat or rheumatism as hot water, when applied early in the case and thoroughly.

Hot water taken freely half an hour before bedtime is an excellent cathartic in the case of constipation, while it has a soothing effect upon the stomach and bowels.

This treatment, continued a few months, with the addition of a cup of hot water slowly sipped half an hour before each meal, with proper attention to diet, will cure most cases of dyspepsia.

Ordinary headaches almost always yield to the simultaneous application of hot water to the feet and back of the neck.—*Bulletin of Pharmacy.*

Lactophenin.—A lady fifty years of age was suffering from an attack of dysentery. Her blood was impregnated with bile pigment to such an extent that I feared icterus as a result or complication. Such cases are always troublesome, and I treated this case as I do other cases accompanied with biliousness. For the fever, restlessness, thirst, insomnia and pain I gave eight grains of lactophenin,

and its effect was so satisfactory that I will use the old phrase and say that it acted like a charm. I was greatly pleased with the result obtained from lactophenin in this case.

The next case was that of a girl ten years of age, who had a temperature of 104°, attended with great nervousness; in fact, the nervous symptoms were such that I feared convulsions. I gave her eight grains of lactophenin, which was repeated, when her fever was reduced to normal and she became quiet and comfortable.—WATSON, in *Alabama Medical and Surgical Age.*

Measles.—There are few cases that cannot be benefited by treatment, and the patient made more comfortable. The fever can be lowered, the harrassing cough quieted, the burning eyeballs soothed, and the aching and restlessness relieved. Opium is the one drug which will relieve the sufferer, and there are no contraindications to its use. A routine prescription in uncomplicated cases for an adult is:

Tincture aconite root, 16 minims.
Extract ipecac, ½ drachm.
Deodorized tincture opium, 1 drachm.
Water, 2 ounces.

Teaspoonful every two hours. Plenty of cool water in small draughts often repeated.

Of course, exaggerated conditions of any of the symptoms must be treated separately, together with any complications.—*Medical World.*

Zinc Oxide with Carron Oil.—It is stated that zinc oxide may be perfectly combined with carron oil by stirring the zinc oxide and lime-water (which should be in good condition and not too freely exposed during manipulation) in a mortar, adding the oil all at once, and triturating. This quickly produces a nice creamy mixture. Ichthyol has also been combined with the mixture, but it is curious to note that if made as above and the ichthyol added last a very satisfactory thin cream results; but if the oil be added last, the ingredients immediately "take sides" in the most hopeless fashion—the oil and zinc oxide coalesce and separate entirely from the black, watery mixture of lime-water and ichthyol.—*Chemist and Druggist.*

Chorea.—I have confidence in only three remedies, giving preference in order enumerated: Absolute rest, avoiding any external excitation whatever, and keeping the choreic in a dark or darkened room: The ascending electric current along the spinal cord—the best results with a gentle current, progressively increased: Arsenic in large doses, beginning with twenty-one drops Fowler's solution daily for children, and double the quantity for adults—even after the chorea ceases the remedy should be continued for some time, for the malady readily returns.

Of course nutrition should be maintained, with good food; and gymnastics may also prove useful.—RENZI.

Olive Oil and the Plague.—Professor J. P. O'Reilly sends some extracts from a work on Morocco ("An Account of the Empire of Morocco," by James Grey Jackson, 1814), containing an account of the use of olive oil as a remedy for a form of plague which depopulated West Barbary in 1799–1800. The oil was used to anoint the skin, either before or after infection. Professor O'Reilly points out that the ordinary olive oil of the Levant and of Spain is not the pure clarified oil we know of in this country, but a green and generally more or less rancid oil produced in a coarse way from all sorts of fruit, unsound as well as sound.—*Nature.*

To Cure Itch in Two Hours.—Employ fresh sulphuret of calcium made as follows:

℞ Sulphur (flour), 3 ounces.
Quicklime, 6 ounces.
Water, 2 pints.

Boil together till combined, then allow to cool and settle. Decant and preserve in hermetically sealed bottles.

Application.—Rub patient all over with soft soap for half an hour, then place in a tepid water-bath for another half-hour. Next rub over with the solution and allow it to dry on the skin for a quarter of an hour. Complete by washing in the bath.—HIEMINKX (Belgium).

Olive Oil for Bruises.—Instead of having recourse to applications of tincture of arnica, spirit of camphor, and strong compression of the swelling in the treatment of light bruises, the preference should be given to olive oil, both in children and adults. Apply freely to the contused parts, and rub the latter lightly with a rag, absorbent cotton, or with the fingers, and finally cover the bruise with a compress saturated with the oil. This treatment gives immediate relief to the patient, and the formation of a bloody protuberance is often prevented, while excoriations and superficial wounds, which may be present, heal very rapidly.—AUGER, in *Bulletin of Pharmacy.*

Palpitation of the Heart.—The various diseases that are accompanied by palpitation, incipient acute aortitis, acute endocarditis, acute pericarditis, adhesions of the pericardium, and mitral stenosis or insufficiency, are benefited by digitalis or its substitutes. I give the following formula:

℞ Quinine hydrobromide, 1 drachm.
Powdered digitalis, 30 grains.
Extract convallaria, 30 grains.

Divide into forty pills; two to four to be taken daily.

—HUCHARD, in *Archives de Médecine et de Pharmacie Militaires.*

For Tapeworm.—

℞ Pomegranate root bark, 4 drachms.
Pumpkin seed, ½ drachm.
Powdered ergot, ½ drachm.

Boil together in eight ounces of water for fifteen minutes and strain.

Rub two minims croton oil with two drachms powdered gum arabic; then add one drachm of male-fern and make an emulsion with the foregoing decoction. The whole at one dose.

The worm will be expelled in about two hours.—WATSON.

Tuberculosis.—In a certain number of cases of tuberculosis there is a decrease in the normal saline constituents of the body, and it will be of advantage to give to patients suffering from this disease an increased quantity of saline material. Thus the phosphate of sodium should be given in the dose of thirty grains three times a day, along with subcutaneous injections of six to seven grains of chloride of sodium. After the treatment there is decrease in expectoration and the objective signs of disease.—STADELMANN, in *Therapeutic Gazette.*

Creosote in Phthisis.—The following solution has been recommended for hypodermatic use in the treatment of tuberculosis:

℞ Beechwood creosote, 13 drachms.
Camphor, 8 drachms.
Di-iododithymol, 5 drachms.
Eucalyptol, 15 drachms.

Sterilized neat's-foot oil, sufficient to obtain seventeen fluidounces of solution. Sixteen minims of this solution contains one and one-half grains of creosote.—*The Practitioner.*

Silk or Catgut in Abdominal Section?—Catgut is better for ligatures than silk, especially in total hysterectomy, where they are left hanging out into the vagina. Silk remains in place indefinitely, and is very liable to become infected. In the west of France a woman who had undergone hysterectomy fifteen months since still suffers from suppuration due to a silk thread, which has kept up a trifling but intractable suppuration.—RECLUS, in *British Medical Journal.*

Iodized Cotton.—Into a large glass-stoppered bottle place 120 grains of iodine and then 1500 grains of absorbent cotton. Close well and heat the bottle in a water-bath for about two hours until iodine is no longer deposited on the sides of the bottle on cooling. In this manner a chemical union of cellulose and iodine is effected, the compound containing three per cent. of the former. The remainder of the iodine is in a free state.—SOULARD.

Enlarged and Indurated Cervical Glands.—These in children when showing a tendency to abscesses and furuncles are very frequently due to pediculosis capitis, and local treatment in these will be found useless unless the parasites are first removed. For this purpose the favorite prescription of Cantrell is:

Extract of staphisagria, 2 drachms.
Acetic acid, diluted, enough to make 6 ozs.

Apply locally.

For Vaginal Injections.—

℞ Powdered alum, 1 ounce,
Powdered boric acid, 1 ounce.
Powdered borax, 1 ounce.
Hydrastine sulphate, 9 grains.
Carbolic acid, 20 drops.
Essence of cinnamon, 20 drops.

For each injection, dissolve a teaspoonful of the powder in a pint of water.

—*La Semaine Médicale.*

Expectorant and Sedative.—

℞ Syrup ipecac, 2 drachms.
Syrup tolu, 5 drachms.
Potassium bromide, 15 grains.
Brandy, 5 drachms.
Tilia water, 20 drachms.

A tablespoonful every other hour.

The mixture rarely causes nausea, and never vomiting.—*Medical Review of Reviews.*

Explosion of Potassium Chlorate Tablets.—A French physician who carried in his vest pocket a tablet of pure potassium chlorate and another of the same material with sugar,

lately carelessly rubbed the two together between his fingers (*Bull. Comm.*), when an explosion occurred which set fire to his clothes. This occurrence should always be borne in mind when handling chlorate products.—*Western Druggist.*

For Eczema, Impetigo, etc.—

℞ Glycerin paste, 30 parts.
Tar (purified), 2 parts.

Add hot starch in powder sufficient to make a pomade.

This tonic calms the itching, dries the excoriations, resolves the redness—in a word, it is astringent and restorative without producing irritation.—M. GIBERT (Paris).

Throat Powder.—

℞ Morphine sulphate or muriate, 1 grain.
Powdered alum exc., 60 grains.
Tannic acid, 30 grains.
Cinchona alkaloid, 120 grains.
Powdered gum arabic, 180 grains.
Sugar of milk, 130 grains.

The foregoing is excellent for dry insufflation in troubles of throat, nose, and larynx. —STOCKWELL.

To Remove Tattoo Marks.—Make a mass, the consistency of dough, with salicylic acid and glycerin; apply to the tattoo marks, and confine with a compress and strips of adhesive plaster for one week. Then remove the layer of epidermis over the marks and apply salicylic acid and glycerin as before. It may be necessary to repeat three times, but usually the second application removes the marks.—*Medical Brief.*

Pelvic Congestion and Constipation.—

℞ Magnesia sulphate, 1 ounce.
Iron sulphate, 20 grains.
Manganese sulphate, 20 grains.
Dilute sulphuric acid, 2 drachms.
Water, 4 ounces.

A tablespoonful in a wineglassful of water before breakfast.

—*Medical News.*

Ointment for Hæmorrhoids.—In the *Journal de Médecine de Paris* of June 27th we find the following formula, attributed to Kossoberdckji:

℞ Chrysarobin, 22 grains.
Iodoform, 9 grains.
Extract belladonna, 18 grains.
Vaselin, 420 grains.

M. Apply two or three times each day.

Paroxysmal Sneezing.—This is akin to hay-fever, but an entirely distinct affection. When due to pressure of enlarged turbinates, relief speedily follows the usual treatment. When due to the existence of sensitive areas in the nares Gibb has given speedy and permanent relief by lightly touching the areas with the electric cautery.—*Philadelphia Polyclinic.*

Thyreoidin as a Galactagogue.—Having given from three to five tablets of thyreoidin (each equivalent to nine-tenths of a grain of the dried thyreoid gland) to each one of nine nursing women, I observed that in seven the flow of milk was increased and its quality improved.—STAWELL, in *International Medical Journal.*

Iritis.—Give bryonia in alternation with *Euphrasia officinalis.* I never saw more pronounced effects from the administration of medicine than from these. There are thousands and thousands of physicians in this country who never gave a dose of either of these remedies.—COOPER, in *Medical Gleaner.*

Headache from Ovarian Disease.—

Ammonium bromide, 6 drachms.
Fluid extract golden-seal, 4 drachms.
Tincture gentian comp., 12 drachms.
Water, 4 drachms.

A dessertspoonful three times daily.

—*Medical News.*

Irritable Bladder.—

℞ Salol, 2 drachms.
Tincture hyoscyamus, 2 drachms.
Infusion of buchu, enough to make 6 ounces.

A tablespoonful three times a day.

—W. E. FOTHERGILL.

Drug Eruptions.—The addition of a small amount, say $\frac{1}{40}$ grain, of arsenous acid, is of material aid in preventing the appearance of drug eruptions, as of the bromides, salicylates, iodides, etc.—HELLER.

Acne Rosacea.—A French physician reports two obstinate cases of this disease quickly cured by the local application of oil of turpentine.—*Medical Standard.*

Orchitis.—Use an ointment composed of one part guaiacol to six of vaselin. It is an excellent application.—*Exchange.*

Medical Progress.

Biological Basis of Menstruation.—Webster discusses the various theories which have been advanced to explain the meaning of menstruation. He believes that it is not a necessary accompaniment or sequel of ovulation, but that there is some relationship between the processes, as is shown by cessation of menstruation in many cases after removal of the ovaries. He mentions Lawson Tait's statement that removal of the tubes without the ovaries is followed in ninety-five per cent. of cases by the same result. A special nervous mechanism controlling menstruation, as suggested by Johnstone, probably exists, but to Webster it seems possible that it is plexiform rather than limited to a single nerve. The view that menstruation is a process by which the uterine mucosa is prepared to receive the fertilized ovum is rejected by the writer for many reasons, as are also other theories of the relation of menstruation to conception. The suggestion advanced by Geddes and Thompson, that the menstrual process is related to the balancing of anabolism and katabolism in the female organism is, however, considered worthy of study and forms the basis of the paper. He says that throughout the animal and vegetable kingdoms the distinctive characteristic of the male sex is katabolism and of the female anabolism, and he points out many reasons for this belief. In the female a surplus is produced in the system after puberty, because the anabolic preponderates over the katabolic. When pregnancy occurs this excess is spent in the nutrition of the ovum during its parasitic intra-uterine life and during lactation. When these methods of using the anabolic surplus are wanting, menstrual losses occur in order that it may be disposed of. The rhythmical character of the menstrual function has probably been gradually determined by the forces of evolution, and its marked variations in the human female (unassociated with pathological conditions) point very strongly to an early period of instability in the process, in which the present variations are probably atavistic reminiscences. Although most concisely stated in the author's article, it is impossible to present his reasons for these views in an abstract.—*American Journal of Obstetrics.*

Unnecessary Street Noises.—Efforts are being made in New York and in some other large cities in the United States to prevent as far as possible the unnecessary street noises. All over the world street noises in the large towns are a nuisance as well as a serious menace to health. Some of the noise must be endured as a necessary evil, but a great part of it might be easily abolished by judicious legislation and to the lasting benefit of the general public. The worst feature of the case is that it is not only in the daytime that the pandemonium is rampant, but at night too, when the nervous system absolutely requires rest, it is often almost impossible in a large city to obtain undisturbed repose. The matter is a serious one and will sooner or later have to be gravely considered. The noises prevailing by day and night in New York are almost beyond belief. Englishmen are rightly prone to think that London is a noisy place, but compared with New York the American, we believe, looks upon London as a village. The noises in New York have a peculiarly jarring, irritating effect on the nerves; the booming rumble of the cable cars, the metallic rattle of the trains on the elevated railway, the jolting of the carts and heavy traffic over the rough, uneven roadways, the continual sounding of the gongs on the cars, the ringing of the bells attached to hucksters' carts—all these combine to make up an aggregation of sounds which happily can be equaled in no part of London. In all large towns unnecessary street noises of any description should be sternly repressed. It seems absurd in these days of high pressure that to the unavoidable sounds should be added those which might be stamped out without doing harm to any one.—*The Lancet* (London).

Nystagmus in Anæsthesia.—As pathologists observed spasmodic and symmetrical movements of the eye muscles in conditions of organic change of the brain and cord, so periodic and transient manifestations of nystagmus have recently been noticed and described as resulting from the use of anæsthetics. Duret thought it a sign of peripheral anæsthesia, which Hagem distinguishes from other nystagmus by the character of side to-side movement; Dartre and Lenoble refer it to the beginning of the anæsthesia; while I found it appear rather at the end of the second stage, or when muscular resolution was about to set in. I have noticed it oftener in anæmic, weak, surgical cases, either in a choroiditis with pupillary obstruction of constitutional origin, or in arthritic and gouty glaucoma. The nystagmus was not persistent and lasted only a few minutes, not returning after the operation. Certain oscillatory movements were found only in chloroform anæsthesia, never in that of bromide of ethyl,

—the action of the latter is milder, more transient, and less paralyzing on the functions of the cord. The automatic power persists during almost the whole time of administration; it produces no toxic effect, acts only on the nerve cells of the medulla, and so causes no nystagmus; while chloroform, on the other hand, produces the deepest toxis of the gray axis of the medulla, and consequently of its nerve elements.—Galszowski, in *Revue d'Ophthalmologie.*

New Source of Plumbism.—The manufacture of artificial flowers has not hitherto been recognized as a source of lead poisoning, and the occurrence of a case in which all the classic symptoms of lead paralysis with other indications of poisoning were present, led to minute inquiry and analysis. The patient had been employed ten years in winding green-paper strips round the green-painted stems of the flowers, and in doing so was accustomed to moisten the corner of the strip with her tongue to make it adhere more readily, repeating the process on arriving at the end of the band. The papers most commonly employed varied in color from brown, through greenish-brown, blue-green, and yellow-green, to pure yellow, and it was found that those forming a color scale from greenish-yellow to greenish-blue contained an appreciable amount of lead. The coloring matter is formed of a mixture of blue and yellow, and the latter consists of chromate of lead. It was asserted that the lead present was in the form of an insoluble salt, but the chromate is easily soluble in caustic alkali, and it was found that the alkaline saliva was capable of dissolving very appreciable traces of this salt. Observers had no hesitation in affirming that in this case the symptoms observed were due to the slow absorption of the metal from prolonged manipulation of the lead papers.—*Glasgow Medical Journal.*

Iridectomy and Glaucoma.—The action of the operation of iridectomy in glaucoma is as follows:

The nervous plexus of the iris, which control the vascular supply and govern dilatation and contraction, are situated in the median zone and contain the terminal filaments of certain ciliary fibers; when the vaso-dilator nerves are irritated, the impulses are transmitted to this plexus and a dilatation of the vessels of the eye follows with increased tension of the globe; but if this plexus has been cut by the excision of a piece of the iris, the vaso-dilator current is stopped and equilibrium ensues.

It may be premised that continuous symptoms are the result of permanent pathological changes, while transitory symptoms are necessarily due to the agency of the nervous system; therefore a form of glaucoma that is transitory and manifests itself by crises cannot be due to permanent change in the sclero-corneal border or angle of the iris.

On the strength of this I present the theory that glaucoma is due to an irritation of the vaso-dilators of the eye, a temporary irritation in the acute and subacute forms, a permanent irritation in the chronic.

The increased tension characteristic of glaucoma is due to the distention of the blood-vessels and hypersecretion of the intra-ocular fluids.—Abadie, in *La Progrès Médical.*

Effect of Lactation Upon Menstruation and Conception.—Of 100 nursing mothers, only fifty-seven presented complete amenorrhœa, forty-three menstruated more or less, and of these only twenty menstruated with absolute regularity.

Conception is not so easily produced during lactation as in the ordinary state; but this is not so in the proportion in which it has been claimed.

If during lactation there occur an absolute amenorrhœa, the probabilities of conception are only six per cent.; if menstruation occur, the probabilities are sixty per cent.

The more regular a woman is during lactation, the more easily does she become pregnant.

The changes that occur in the uterus during lactation accompanied by menstruation are presumed to be similar to those that take place during the ordinary menstrual periods, the uterine mucosa forming a nidus for the reception of the ovum.

In women who do not nurse absolutely, the menstrual flow, as a rule, appears within the first six weeks that follow the birth of the child.—*Canadian Practitioner.*

Function of the Suprarenals.—The extirpation of both suprarenals causes a decided diminution of the blood-pressure; the pulse becomes smaller.

Introduction of suprarenal extracts into the veins produces, chief of all, a decided increase of blood-pressure, and increase of the heart's action.

The blood flowing from the suprarenal veins, when introduced into the circulation

of another animal, causes the same phenomena as do the suprarenal extracts when introduced into the blood, but in a lesser degree.

It is concluded, therefore, that the suprarenals are organs of undoubted necessity to life, being glands with an internal secretion: that it is their duty (especially of the medullary substance) to produce and transmit to the blood a substance which continually upholds the activity of the vasomotor nerve-centers, the vagus, and the accelerator nerves, as well as the respiratory centers, and in all probability the centers controlling muscular tonicity.—Szymonowicz, in *Archiv für Physiologie.*

Changes in the Blood After Thyroidectomy.—Doctor Postoeff, of Kharkoff, has made a number of observations on the blood before and after removal of the thyroid gland with the object of elucidating the changes which extirpation produces in the blood. He divides the theories which have been propounded on this subject into two groups—the one supposing that the thyroid gland in its normal condition secretes some substance which is necessary to the proper working of the nervous system, and the other ascribing to the gland the secretion of some substance which directly destroys certain metabolic products, the accumulation of which in the blood would be fatal. His observations show that the extirpation of the thyroid gland is followed by a diminution in the red corpuscles, the hæmoglobin, and the specific gravity of the blood; an increase in the white corpuscles; a great increase in the fibrin obtained by whipping the blood; a diminution of nitrogen in the fibrin, not only relative, but absolute.—*The Lancet* (London).

Bedbugs and Disease.—During the typhus epidemic in Odessa the disease was located mostly in dirty and crowded boarding-houses, full of vermin. Some bedbugs were put with spirochetes and starved for several days, after which the bugs were put upon the skin of a patient, under a small glass bell, during an attack of relapsing typhus. When the insects were satiated with blood they were crushed between two glass slides and examined, after slightly staining them with gentian-violet. The blood of the bugs contained many spirochetes, which retained their form after eighteen hours.

Some of the starved bugs were allowed to suck the blood upon a shaven spot on a monkey infected with typhus, then crushed, and the blood injected under the skin of a healthy monkey. Sixty-four hours later spirillæ were found in the blood of the latter. Thus among many other agents bugs may play a rôle in transferring disease.—Tiktin, in *Meditzinskoye Obozrenye.*

Prostatic Hypertrophy and Retention.—After thoroughly emptying the rectum, the patient is anæsthetized, a rectal speculum passed, the upper part of the bowel plugged with gauze, and then, under the guidance of the finger, a specially devised hook with graduated stems is passed into the prostate to steady it. The prostate is then cauterized with a Paquelin or galvano-cautery over the extent required. The operation only lasted two minutes. The bowels are kept confined for a few days, and a catheter kept permanently in the bladder for some time. On the sixth or seventh day a purge is given, and at the end of ten or twelve days the catheter is removed, and the patient urinates by himself. In each case cauterization per rectum not only speedily relieved the congestion, but caused a notable diminution in the size of the prostate.—Negretto, in *Gazzetta Degli Ospitali.*

Sign of Latent Aortic Aneurysm.—Is the presence of a systolic sound in the brachial artery, synchronous with the cardiac systole, and sometimes accompanied by an arterial murmur. When this sound can be heard, and aortic regurgitation can be excluded, a positive diagnosis of aneurysm can be made, even in the absence of all other signs or symptoms; the sound is due to rapid tension of the walls of the only partially filled artery,—due to the sudden impact of blood at the heart's systole. In pure aortic regurgitation the sign is always present; in two out of six of the reported cases of aneurysm the diagnosis was made from this sign alone, four months before the appearance of the recognized physical signs. In all the cases the systolic sound in the brachial artery was present; five were intrathoracic aneurysms and one abdominal.—Glasgow, in *New York Medical Journal.*

Leprosy Curable and Non-contagious.—A colonel serving in India sixteen years ago consulted me for leprosy. He was most severely affected by the mixed form, in part tubercular and in part erythematous only. His eyes had suffered and he was quite blind. He is now, and has been for many years,

quite free from all active leprosy manifestations. He is florid, and would be taken for a man in good health, but his hands and feet are still numb and liable to become dusky. He was married at the time that this disease began, and two children were born to him whilst it was at its height. These children are now fine, well-grown girls of sixteen and eighteen respectively. He has lived throughout in cohabitation with his wife, and she retains good health.—JONATHAN HUTCHINSON, in *Archives of Surgery*.

GONORRHŒA AND STERILITY.—Of three hundred and ten women who had been married for at least a year without becoming pregnant, seventy-two had been married ten years or over, the others three years on an average. Of fifty of these women's husbands, thirty-eight had gonorrhœa, and thirty-four infected their wives. According to this ratio in the whole number of husbands there must have been two hundred and thirty-five who had had gonorrhœa, and two hundred and ten infected their wives, an inference that is supported by the fact that in a hundred and ninety-eight of the women I found the same inflammatory lesions as in the thirty-four who were known to have contracted the disease from their husbands.—VEDELER, in *Norsk Magazin for Lägevidenskaben*.

PRECOCIOUS MENSTRUATION.—The reports of menstruation in infancy and childhood which are so often made are not to be too readily accepted. Comby found ordinary vulvo-vaginitis sometimes accompanied by distinct hæmorrhages. In children two, three, and six years of age cited as instances of precocious menstruation, he found that the blood came not from the uterus, nor from the vagina, but from vascular granulations about the meatus urinarius, which bled freely if touched. This condition was cured by weak injections of permanganate of potassium, and cauterization with a one in fifty solution of nitrate of silver.—*L'Union Médicale*.

MALIGNANT DISEASE OF UTERUS.—Cancer of the cervix uteri, if left without surgical interference, always kills.

The disease in most instances is primarily a local process.

Early hysterectomy will cure quite a percentage of these cases.

The microscope, while a great diagnostic aid, is not infallible in its findings.

The experienced surgeon is warranted in resorting to hysterectomy, even in doubtful cases.

Every malignant gravid uterus should be removed before the disease has advanced beyond the period of a probable cure.—CORDIER.

MIMIC POWER OF THE UTERUS.—The uterus, something like the parrot, will do the talking for every organ of the body and mimic every disease in the encyclopedia of pathology. The pelvic organs are as dials upon which are expressed the ills of the entire body in many of the neuroses. How few of us can positively differentiate between profound neurasthenia expressing itself in the pelvis and diseased pelvic organs causing and maintaining profound neurasthenia!—EASTMAN.

PHYSICAL STATUS OF PREGNANCY.—Doctor Davis in a recent lecture dwelt at length on the necessity of watching carefully the excretions of the pregnant woman. The symptoms of toxæmia appear and increase so insidiously that unless watched closely dangerous symptoms will appear in a short time. No headache in a pregnant woman should be allowed to pass unnoticed by her attending physician.—*Philadelphia Polyclinic*.

REMOVAL AND REGENERATION OF THE SPLEEN.—Landenbach reports having removed the greater portion of a dog's spleen, and at the end of six months there was a complete regeneration of the entire organ. The removal caused profound disturbance of digestion and impaired nutrition, but notwithstanding this fact the entire organ was reproduced.—*Deutsche Medizinal-Zeitung*.

NOSE-BLEED IN CHILDHOOD.—Epistaxis in children and particularly if the attacks be recurrent is *frequently significant of organic heart disease*, and as a corollary thereto, in every case of epistaxis a physical examination of the heart should be made.—FRUITNIGHT, in *Archives of Pædiatrics*.

HYDROCHLORIC ACID IN GASTRIC JUICE.—This is increased in gastric ulcer and acute gastritis; diminished or absent in cancer or dilatation of the stomach and chronic gastritis; about normal in the neuroses of this organ.—*Quarterly Medical Magazine*.

The Medical Age.

VOL. XV. DETROIT, NOVEMBER 10th, 1897. No. 21.

Original Articles.

A REVIEW OF THE DANGERS AND EVILS OF BICYCLING.

BY C. C. MAPES.

While the bicycling craze is at its zenith seems an inopportune time to review the dangers and evils incident thereto, or offer adverse criticism from any standpoint, lest the writer on the one hand be denominated "a fool," "a crank," or on the other his contribution be refused by the publisher through fear of offending his readers.

It is not the writer's intention to claim originality or priority, but to impartially review the dangers and evils attending bicycle riding, which have not been sufficiently emphasized by contributors to any department of literature. Much has been written concerning the bicycle as a curative or palliative measure in various disorders, mental and physical; and it is undenied that the good influence exerted is considerable as regards the exercise and recreation thereby afforded, where these features are *desiderata*, but the *curative* or even *palliative* effects have been exaggerated in proportion to the enthusiasm of individual writers.

Modern medical literature contains few articles describing the deleterious effects — physical, mental, moral, or otherwise — of bicycle riding upon either the male or the female, the youth or the aged.

Doctor Joseph W. Irwin,* of Louisville, Kentucky, reported five cases of prostatitis resulting from pressure of the bicycle saddle upon the deep urethra and prostate gland, so far as known being the first to call attention thereto. He declares that within the last eighteen months five cases of prostatitis had come to his notice, which could be traced directly to the pressure on the prostate gland by the saddle of the bicycle. Four of the subjects had passed the years of middle life, and one was in his teens. In all cases the phenomena presented were similar in character: After riding the bicycle for a few hours, during the act of micturition a feeling as though the vesical end of the urethra was raw was experienced; then a full feeling behind the scrotum came on, which was unattended by pain. Inordinate and persistent erections of the penis, coming on at short intervals and lasting three or four days, were the most unpleasant feature observed. The urethra during the act of micturition felt raw and tender under pressure; weight and some dull pain was felt in the testicles. There was no discharge from the penis at first, and after two or three days a little moisture was observed coming from the meatus urinarius that seemed very thin and colorless. The desire to void the urine more frequently than normal was present while the trouble lasted.

Doctor Travis Carroll reported to the Cincinnati Academy of Medicine* a case of persistent priapism due to pressure of the bicycle saddle in a boy aged thirteen years, well developed and apparently otherwise healthy. He had ridden a bicycle since early childhood, and when seen his penis was the size of an erect adult organ. Pain was intense; the organ was erect, rigid, hot, and tender. Examination through a normal rectum revealed a slight swelling and tenderness of the prostate. With the patient in an erect position great difficulty was experienced in passing his water, due to the upward inclination of the penis. The fact that the boy had been a constant rider of the bicycle, the activity of the process going on in the penis, and the absence of enlarged spleen and liver tended

*_Cincinnati Lancet-Clinic_, vol. xxxv, No. 25 (quoted by Doctor Wm. Judkins).

*_Loc. cit._

to the conclusion that the trouble was due to injury, with subsequent inflammation.

Doctor William Judkins* said that prostatitis from the use of the bicycle was common, with and without prolonged priapism. As to the effect of bicycle riding on the female Doctor Judkins said:

> A not uncommon experience is to have statements from the opposite sex (female) of pleasurable sensations, equal to titillation, from the use of the bicycle. When we consider the triangular shape of the saddle; its narrow width, even at the widest part, not allowing the ischia to rest firmly on the seat; that all weight is on the perineum; that the apex of the saddle lies practically between the labia, it is not difficult to conceive from the vibration, or jolting, caused in riding over granite streets, that the statements of the "fair wheelers," though taken *cum grano salis*, are, it is reasonable to suppose, true.

In an interesting paper by Theresa Bannan, M.D., of Syracuse, New York, occurs the following:†

> This means that these sensitive tissues are subjected to a pressure, the evil results of which cannot yet be estimated. Moreover, the impingement and vibration of the saddle can, and do, act as a sexual excitant. It would seem better for the medical profession to face this fact than to leave it a food for the evil-minded, or the subject for jokes.

In the cases of prostatitis referred to, the trouble beyond question resulted from pressure of the bicycle saddle, but without such positive evidence the conclusion would be warranted, when it is remembered the conformation of the saddle is such that pressure is necessarily severe upon the posterior urethra and the prostate gland—quite sufficient in any case to produce the condition described. It is easily understood if a man has but recently recovered (?) from an attack of gonorrhœa (posterior urethritis), irritation from pressure of the bicycle saddle would be sufficient to rekindle the lesion and stimulate a continuance of the discharge.

The writer believes it unsafe for a man who has had a protracted gonorrhœa to ride a bicycle under any circumstances, even after subsidence of all symptoms. Difficulty is sometimes experienced in curing an obstinate gonorrhœa under the most favorable conditions, and if the patient persists in bicycling it would appear impracticable to effect a cure. Moreover, gonorrhœa cannot be pronounced cured upon cessation of the urethral discharge, as the *fons et origo* may still lurk in the rugæ of the deep urethra and only needs a slight stimulus to excite renewed invasion and consequent continuation of the disease. Irritation from pressure of the bicycle saddle has been the cause of mischief in this particular more frequently than most writers are willing to admit; they are too prone to conclude there has been a fresh infection from a recent dalliance, notwithstanding the patient's statement that he "has not been exposed for months." While statements of patients cannot be implicitly relied upon, especially with respect to venereal diseases, some recognize the importance of being truthful, as they know the physician is otherwise grossly misled.

Krauss* reports a case of acute dilatation of the heart, together with various other physical defects, resulting from over-bicycling. The patient was a middle-aged man with a history of rheumatism in early life, and typhoid fever later. Soon after adopting the use of the wheel he noticed upon the least exertion a vigorous "thumping" in his left side, throbbing in the neck, severe pain over the left side of the chest extending to the neck, a feeling of weakness all over the body, and a stiffness of the knee-joints, always accompanied with dyspnœa. Examination revealed the following:

> Face had an anxious, apprehensive expression; eyes glassy; facial muscles quivering; pallor and emaciation pronounced; slight tremor to the head, but it was not painful on percussion, and he had never had headache. Ophthalmoscope showed hyperopia; no astigmatism; both eyes had unsteady lateral movement, and there was weakness of all eye muscles. Strength of arms diminished; hands tremulous with increased tension and muscular reflex action. Legs were likewise weakened, also tremulous, and the reflexes exaggerated. The precordial area was largely increased and reverberated with every heart-beat. The apex point diffused and impossible to locate. On palpation a tremulous and purring sensation was experienced that also was communicated to nearly the whole side of the thorax. Percussion showed increased area of cardiac dulness extending to the right of the sternum, to the left of the mamillary line, and below the nipple. The heart-beats numbered 130 to 150 per

Loc. cit.

†*New York Medical Record.*

**Journal of the American Medical Association.*

minute. Urine increased in quantity, but without albumen or sugar. Bowels regular. Sleep fair, but was often awakened by the heart's action. During the day he was aware of much fluttering of the heart while napping.

A note on "Bullock's Heart" recently appeared in print from which I excerpt a portion:

Ordinarily a human heart weighs from twelve to thirteen ounces; when one is discovered which weighs some thirty-two ounces (and this discovery is generally made when the owner has no further use for his heart), it is styled a "bullock's heart." How is this weight increased? All, or nearly all, bicyclists know it is done by scorching or by long-distance riding. In a long-distance ride the heart beats from 100 to 125 times a minute, an extra draft for which there must be some compensation in nature. To increase the normal heart-beats from 70 to 100 or 125 means a gradual enlargement of the heart chambers and of the heart tissue and consequently of the weight, which, if the long-distance riding is persisted in, finally ends in bullock's heart and then death.

In connection with the last two cases cited the following editorial* may be interesting,—several suggestions are made, especially as to the effect of excessive bicycle riding upon the youth, which the writer had intended to embody in the present contribution, therefore we gladly excerpt:

It is not an infrequent experience to see boys ranging in age from six to ten years riding their bicycles rapidly and continuously several hours of the day. The parents of these youths seem to have no conception of the *physical harm which might befall and which in a majority of instances follow the excessive use of the bicycle by the growing child.*† When a youth who is rapidly growing indulges in the use of the bicycle after the manner represented the consequences certain to follow are not one but many. They ride in a manner which must in those with weak spines, either from hereditary or other causes, result in spinal deflection, or some serious disturbance of the vertebræ. Another point to consider in overexertion is the effect upon the heart. In some cases in those who have strong, healthy hearts, the danger will be less, but *modern civilization does not tend to produce youths and men with healthy cardiac organs.*† From the abnormal stooping of the shoulder the result is to contract the chest, and as bicycle riding is continued from year to year, and the boy becomes the young man, he has a stooping shoulder, narrow chest, and ill lung development. We speak particularly of the youth when the articulations are not sufficiently hardened, at an age when they yield to abnormal shapes and positions.

Speaking briefly of a few of the many ill results which follow excessive use of the bicycle among men, we will turn first to the effect upon the digestive organs. In carrying on this sport intelligent men seem to be deprived of all reason as regards their physical conditions. Every practitioner knows the ill effects that follow the taking of food immediately after overexertion; the blood is drawn to the surface of the body by reason of the dilatation of the superficial blood-vessels, and the stomach has but little of this necessary fluid to draw upon for the secretion of the various digestive ferments. The result is simply this, that the food is only partially digested. In those who have a natural tendency to indigestion the ill effects are magnified, and perhaps the food in such subjects is scarcely digested at all, the result being acute gastritis or some of the lesser ailments which by repetition finally assume a chronic type of serious proportions. The prize winner in bicycle races of one year is never capable of repeating his records in succeeding years, and in a very short time he becomes not the athlete, but the invalid.

A note* of warning as to the risk of bicycling in wet and winter weather may not be out of place. While those who are strong and hearty may enjoy it, and if they wear suitable garments and change their clothing at once on returning home will probably take no harm, it is by no means a practise to be encouraged in the case of weak and delicate persons, for the exhaustion produced by hard work must leave a person of fragile physique very liable to contract colds or to develop *rheumatic symptoms.* The liability to such dangers is particularly great in the case of ladies. A theory has been started to the effect that bicycling will tend to make a woman of the future acquire a squat figure. We are not indisposed to believe that a too exclusive devotion to cycling as a mode of exercise may have the effect of depreciating somewhat the grace of carriage and the general balance of development.

In the same issue there appeared an article advocating bicycle riding as a *curative* measure in rheumatism, although the foregoing shows that "rheumatic symptoms" may result from the use of the wheel under certain circumstances. No doubt the enforced exercise of moderate cycling, by its influence upon the eliminative apparatus, may act beneficially upon the course of chronic rheuma-

New York State Medical Reporter.
†Italics mine.

British Medical Journal.

tism, but beyond such influence it has been demonstrated that the effect is *nil;* and as such exercise possesses no more value than that which may be otherwise obtained, and because of the dangers attending the immoderate use of the wheel, conservative advisers should hesitate to recommend it.

To digress slightly and refer to the dangers of bicycle riding from accidental causes, I interpolate an abstract from *The Lancet* (London):

Cycling, which was yesterday the fad of the few is to-day the pastime of the many. But unfortunately this progress has been attended with the sacrifice of many lives and with numberless casualties, many of which have been very severe. A prolific source of accident is hilly ground. The moment the brow of a hill is reached the reckless cyclist seems impelled to take his feet from the pedals and to allow the machine to descend with all the rapidity which weight, gravity, and the gathering force give it. To the novice this is especially attractive, inasmuch as it gives him an opportunity of resting his tired muscles. Providing the rider has a straight and clear road it is just possible that no accident may occur, but the story of casualties from this cause is invariably the same: the cyclist loses control over his machine and collides with some object, with the resulting effect of death or severe injury. Another frequent cause of accident is the practise of scorching. Oblivious of everything but the one object of overtaking that which is immediately in front of him, he rushes madly on and, if fortunate enough to escape injury to himself, is only too likely to cause serious harm, if not death, to the pedestrian who may be unfortunate enough to be in his way. The ambition for record breaking and the desire for making a century run are greatly responsible for the practise of scorching, and they should be strongly denounced by any medical man who has an opportunity of advising in the matter. These two causes of accident, we are sorry to say, cannot be attributed to the male sex alone. Quite a number of these accidents occur to women, many of whom are physically unfit to cope with the crowded traffic. It is not always the fault of the cyclist that accidents happen in our crowded thoroughfares. The intolerance of cabmen, deliberately crossing to the wrong side of the road in front of a cyclist, for no other purpose than the wanton one of causing the latter to dismount. Drivers of light private vehicles, again, frequently show the utmost contempt for the cyclist, who they seem to think has no right whatever to the use of the road. Faulty machines are a source of accident which manufacturers should be made responsible for. Several accidents have occurred lately from this cause, and we greatly fear that the increasing demand on the part of the public for machines will not tend to lessen this cause unless the manufacturers are made liable. Two serious sources of danger are the use of the crowded roads by learners and the hiring out of machines to novices. A busy road would seem to be the last place a sensible person would select for learning to ride a bicycle, yet three deaths have taken place from this cause within the past few weeks. The hiring out of bicycles to children and roughs bent on what they call a spree should be checked by law.

The cases which we have mentioned are not hypothetical, but have been drawn from a list of recent accidents.*

If pressure of the bicycle saddle is injurious to the male, it is doubly so to the female, and in the latter the dangers are not only physical but moral. Several cases have come to our notice where masturbation in female children has been acquired by irritation of the clitoris from bicycle riding, and a reasonable deduction would suggest that older girls are not exempt from the abnormal occurrence.

In the preparation of this paper numerous medical periodicals have been consulted, and the excerpts which follow are from editorials, original articles, communications, selections, etc., and owing to the large number of extracts made, only a small portion in some instances being utilized, I cannot attempt to give further credit to either authors or journals.

A gentleman of Louisville, who has a national reputation as a writer, is one of the few who have not succumbed to the bicycle craze. He remarked that Iroquois Park at night was one of the "toughest" places about the city. Friends who ride wheels keep him posted, and he averred that were he to give the names of the society girls who favored the place it would create a panic. He insisted that the wheel was responsible for more immorality than anything else ever invented. Why, if a woman were to go out with a man in a carriage, or on a horse, or in a street car, and come home at midnight, she would not have a shred of character left. But the girls here come in from the Park long after twelve o'clock; they go out alone and pick up any one they please; nobody knows where they go; and the mere fact of riding the wheel seems to give them license to tie a tin can to the tail of the seventh commandment.

* * *

There is a seductive tendency while riding to cultivate, or at least take up, the acquaintance of

---

*Five fatal bicycle accidents have recently occurred in the city of Louisville alone; minor casualties are alarmingly frequent.

other riders. There is developed quite unconsciously a social freedom which would not be tolerated in home and family circles. Not long since a couple of young ladies of irreproachable character and social standing, while out on their wheels, fell in with two other well- and wheel-dressed damsels. To speak to each other was easy and natural. Exception could not be taken to the subject of conversation. The new acquaintances became jovial friends, and would meet for rides on the avenue. Names were exchanged, and friendly greetings for two or three weeks, when the brother of the first two met the little party, was introduced, and it did not take him long to learn that his sisters' charming acquaintances, of whom they had been speaking in such favorable terms, were none other than a pair of *nymphs de pave*.*

***

Word comes to the writer from very reliable professional sources that suburban and country tours on bicycles are not infrequently accompanied by seductions. The exhilaration of the ride, erotic sensations from the unnatural leg motions, and convenience of dressing- and wash-rooms in wayside inns provide facilities which are irresistible, and the evil is done. Again, the unnatural movements of the legs in some produce an erotic sensation, which does not stop short of an orgasm, from which there is a very short cut to habitual masturbation. In the young at the age of puberty, when the genitals are in a state of continuous irritability, there is much danger of producing mental, moral, and physical damage.

***

Cycling in childhood in many cases ought to be altogether prohibited. The introduction of wheeling is not to be recommended in the physical education of children. The effect on the heart of the child is even more injurious than on that of the adult. The continued pressure of the saddle also has a *bad influence on the undeveloped generative organs*.† The bony skeleton is still soft, and tends to deformities.‡ Bicycling should be absolutely forbidden in convalescence from fevers. Frequently myocarditis is produced by it after infectious diseases.

***

---

*The writer has received information from a reliable source that, by virtue of an "association," or "understanding," among bicycle riders, members of either sex may with perfect propriety (?), without introduction or other formality, speak to and engage in conversation with anybody they may encounter astride the wheel.

†Italics mine.

‡Note.—Birmingham, Ala., claims to have the youngest cyclist in the United States in the person of a three-year old girl, who began to ride when only two years and five months old. We are told the child's baby sister is to be taught to ride when she is two years of age. Comment is unnecessary.

The ordinary saddle, with its projecting, unresisting centerpiece, pressing hard upon the perineum and genitalia of riders of either sex, inevitably produces serious damage to the wheel votary. In the male, hernia, inflammations, and injuries to the perineum, urethra, prostate, seminal vesicles, spermatic cord, vas deferens, and testicles; equally serious are the troubles produced in the female—inflammations of the perineum, urethra, vagina, metritis, and uterine displacements. The inflammations mentioned are liable to produce sterility in both sexes.

***

A word in regard to the tandem where used by a male and female. The sight of it is immodest to say the very least,—a tandem bicycle with a girl at puberty bent forward in what may be called a scorch attitude, and right behind her a fellow in a jumping bullfrog position, together working their legs in unison. Every city, town, and State should enact misdemeanor laws that would stop such double riding as may be seen on our streets on tandem bicycles. It is a mild expression to say such riding is vulgar, demoralizing, and leads to immorality. It may be said that there is neither culture, refinement, nor good breeding, with moral elevation, to be placed to the credit of the bicycle.

***

The wheel is often the primary or exciting cause of serious rectal trouble, and there is no affection of the rectum which it will not aggravate. Cases of fissure, piles and pruritus ani have developed from bicycle riding, which resisted all treatment until the machine was discarded. A great deal of nonsense has already been written about the benefits of the bicycle to women. From a physiological standpoint it certainly is not to be recommended, especially if there is any tendency to genito-urinary troubles. Aside from this we are aware of several cases of production and aggravation of varicose veins thereby, and it especially tends to destroy the natural contour of the female ankle and render the same "beefy"—in other words, the ankle is enlarged and the calf caused to run down into the heel, a deformity few ladies possessed of graceful "understanding" will care to possess.

***

"It seems to be the ambition of every person, male and female, from the time they walk until they have reached the age of discretion, say about seventy-five or eighty, to own a bicycle. Much of this is undoubtedly due, first, to the introduction of what is known as the safety bicycle; second, to the booming methods of the bicycle manufacturers; and third, the feature with which we have to deal, the general introduction of bicycle riding among women. While we admit everything that has been said in regard to the advantages of women getting out in the open air and having healthful exercise, we object to this particular form of it. We now

propose to discuss directly and plainly, as far as experience has informed us, the immoral and injurious effect of bicycle riding upon women. We have a saddle so constructed that it fits more or less accurately the perineum and adjacent parts. The general report (from males) is that all the pressure comes on the soft parts of the buttocks between the tuberosities of the ischium, on the perineum and forward towards the scrotum, the latter being produced by the stooping position in which the person rides; and, as they explain it, they have to 'hinch backward' occasionally in order to relieve the pressure and irritation along the urethra. All of which brings us directly to the point that the strong pressure upon the like parts of the female goes a long way towards, as one of our exchanges expresses it, 'filling a long-felt want.' While this expresses the effect produced, it would be absurd to suppose that it was the primary reason for bicycling; nevertheless the consensus of opinion is increasing overwhelmingly that bicycle riding produces in the female a distinct orgasm. We know of a number of lady riders who have been compelled to give up the use of the bicycle on this account; and even if an orgasm is not produced, the continued erethism is decidedly more injurious and tends to the production of nervous diseases and the general breaking down of the system. The only contention that can be made is that the orgasm or erethism is not produced. This we know to be absolutely untrue—so much so that we have on good authority within the last few days heard of a case which is responsible for this editorial. This is simply that in one place where cycling is taught the saddle has been purposely raised to aggravate this condition, and that the attendants who steer innocent maidens around on their wheels find that at first erethism and then orgasm is produced; the lady complains of being tired and gets off her wheel. A condition of affairs so scandalous and abominable deserves the attention of every man who trusts his female relatives to bicycle riding, and if men are found who would purposely do this sort of thing—as there is no doubt that some have done—a term in the penitentiary with an occasional application of the 'cat' would be a mild punishment. In bicycle riding we have a woman pedaling away in much the same manner as running a sewing machine, and we know what this has been accused of in the way of producing female complaints. But add to all this the working with a contracted chest in a stooping position, with all the abdominal organs pressed downwards, subjected to continued erethism, as well as an occasional orgasm, and you have a condition of affairs which will take a better authority than the bicycle manufacturer to prove to us that bicycle riding is a healthful exercise for women. It is not necessary to point out to physicians *the relaxed nervous and moral stamina produced in a girl by taking a ride out into the country.** We have a number of cases now which have been carefully looked into, and we are absolutely satisfied, as far as we are concerned, that *female bicycling must be sharply looked after, and care exercised in its indulgence.*"*

In connection with the above extract we have been told, on good authority, of several instances where young girls have been influenced by male companions of the same age, or perhaps older, to indulge in sexual embraces after a long "spin" in the country. It is probable that these girls were uneducated (innocent, *i.e.* ignorant) in all matters pertaining to sexual morality, and perhaps did not understand or appreciate the gravity of their acts. It is also undoubtedly true that without the demoralizing influence (sexual excitement) exerted by the pressure of the bicycle saddle, sexual intercourse would not have resulted.

* *
*

Lawson Tait emphatically condemns bicycling for women. The harmful influence which this exercise has is dependent upon its being overdone, the general health suffering, or upon faulty position and imperfect construction of the saddle, local diseases being thus produced. Women who have disease of the genital organs should not be allowed to ride a bicycle, since it causes hyperæmia of these parts and thus accelerates the disease. A large number of French gynæcologists believe bicycling is a leading factor in disturbances of nutrition, in neurasthenia, hysteria, chlorosis, dyspepsia, chronic constipation, anæmic amenorrhœa, and nervous dysmenorrhœa.

* *
*

It is notorious that the bicycle is in many instances unsuitable to women; that the best saddle does not meet the comforts or requirements of the female pelvis; that aside from the pedal motion that ever tends to provoke erethism, the jolt of the machine is not without evil effect upon the uterus and other generative organs, and is especially apt —particularly when fostered by improper methods of dressing—to induce laxity, version, prolapse, with all the concomitants of endometritis, menorrhagia, etc. During the present summer, in one institution the writer knows nearly fifty women were treated gynæcologically whose ills were in each and every instance directly traceable to the bicycle. Both bicycle saddle and pedal are radically wrong as regards the moral safety and physical comfort of woman, and the effects induced are, unfortunately, slow and insidious, the exhilaration of the exercise for a time overbalancing all else. It is a fact that so called bicycle schools do tend to foster immorality to individual members of the sex. In the meantime appropriate warnings are certainly not amiss, *more particularly as regards the young, verging upon, or just past, the budding of womanhood.**

* *
*

A girl developed exophthalmic goitre as the result of a rather long bicycle ride. Another form of organic injury is internal inflammation, of which

---

*Italics mine.

the symptoms are much pain and a chronic dysentery, extremely obstinate, and of the most lowering character. Quite recently one of the medical journals has called attention to the occurrence of appendicitis caused by bicycle riding. How many other women have spent the major part of the winter in bed or on the sofa from the same cause?

***

After a six days' bicycle race several of the competitors were seized with a species of dementia. One was quite out of his mind for nearly two days, refusing to touch food or drink and charging his attendants with attempts to poison him. A second showed slight symptoms of delusion; he dismounted and declared excitedly that there was a scheme to run him down. A third threw himself down by the side of the track, declaring that one-half of his head had been carried away, and that he would be killed if he remounted his machine. He addressed the audience, saying they were throwing stones and brickbats at him. A fourth dismounted, turned his wheel about, and started at a lively pace in the opposite direction. Few of the other contestants were able to stand without support when they retired.

***

In attacks of acute diarrhœa, where the anus is excoriated from watery evacuations, and the rectal mucous membrane congested and often inflamed, the bicycle adds more fuel to the flame, and is often the direct cause of fissure, rectal ulcer, or internal hæmorrhoids.

***

Doctor John T. Davidson believes excessive use of the bicycle will lead to sterility in the male, especially when there is an already hyperæsthetic deep urethra from an old gonorrhœa.

***

Urethral stricture may follow the congestion caused by riding a badly-fitting bicycle saddle.

***

Recent investigations of the urine of healthy subjects before and after bicycle riding showed in half of the cases such an abundance of albumen and cylinders of various kinds that the diagnosis of acute or chronic parenchymatous nephritis would certainly have been made by any one unacquainted with the circumstances. It is evident that the condition is what Leube designates as physiologic or functional albuminuria, with the difference that Leube and Senator state that there is no trace of cylinders in physiologic albuminuria, while in eight riders examined, members of a bicycle club, tube casts of all kinds were found in abundance in all but two, with more or less albumen in all. Four other riders gave out after an hour and a half or three hours' ride, and in two of these the urine was normal; in the other two it was moderately albuminous, with no casts. Five healthy boys also showed albumen in the urine after riding. The rational conclusion is, that the frequent repetition of such experiences can scarcely fail to terminate in chronic nephritis sooner or later.

***

A man aged twenty six years, of rather delicate physique, but in good health and of perfectly correct habits, rode fifty miles on a bicycle; this was his first long ride. He became hot and sweaty going up hills, and felt icy cold coasting down. Beyond the natural fatigue of such a journey no special effects were felt for a week, when queer sensations were experienced in the face, but soon passed off. In a day or two slight numbness began in the hands, and involved the feet also. These symptoms became marked, moderate ataxia developed, and the faradic response became feeble but not lost. The diagnosis of multiple neuritis seemed clear, and no other explanation could be found for the occurrence of the disorder than the long ride.

***

Doctor Destot published an account of his own experiences. After a long bicycle ride he experienced paræsthesiæ in the fourth and fifth fingers, with impaired sensibility and paresis in the interossei, lumbricales, and the adductor pollicis. This paresis was followed by distinct atrophy in the affected muscles. He considers the affection to be the result of pressure upon the branches of the ulnar nerve, aggravated, doubtless, by the vibration occasioned by bad roads.

***

A careful consideration of the foregoing review renders the following conclusions reasonable, if not altogether warranted:

That the evils and dangers of bicycle riding — physical, moral, etc. — have been largely underestimated by most writers:

That pressure of the saddle is capable of producing prostatitis, urethritis, stricture, sterility, impotency, etc., in the male:

That it contributes to the production of a long train of physical disorders in the female, aside from its pernicious moral influence:

It may, and often does, produce serious affections of the heart, kidneys, rectum, nervous system, etc., in both sexes, when indulged in to excess:

The habit of masturbation is not infrequently acquired in female children by irritation of the external genitalia while astride the saddle:

Its beneficial influence upon any disease has not only been greatly exaggerated, but is a matter of serious doubt:

In males who have had gonorrhœa, or

other urethral, prostatic, or rectal diseases, the use of the wheel should be prohibited, and in healthy individuals used with caution:

In females wheel riding should be for the most part prohibited.

Louisville, Kentucky.

THE FLUOROMETER IN SURGERY.*

BY JOHN DENNIS, M.D.

During the brief ten minutes allotted to this paper it is obviously impossible to enter upon a disquisition on the Roentgen energy, if, indeed, it would not be a work of supererogation. All are familiar with the general principles of this strange force, in so far as they have been demonstrated. I will therefore confine myself to a consideration of personal researches on the lines of using the energy as an aid to surgeons and physicians.

Every devotee of the Roentgen energy, who desires to utilize it in surgery, is confronted with some very serious and not always fully understood conditions—conditions which must be recognized and rectified before the force can be relied upon as a guide in the search for the normally invisible in the human organism.

The effect of the force becomes manifest to the observer in the form of a shadow, whether it be the manifestation on the screen of the fluoroscope, or the result of action on a sensitive photographic plate—it is a shadow, and a shadow only. This shadow is subject to very grave distortions. In the first place the slightest variation in the position of the subject with reference to the source of energy produces a grotesque effect in the shadow of the subject itself. The grotesque effect in the shadow of any impermeable object inside of the subject is still more marked. Take an orange and place a bit of metal just inside, at say the stem end; then hold the orange firmly against the screen of the fluoroscope before the tube; change your position laterally never so little, and it will be observed that the metal travels around the end of the orange in a manner which is uncanny,—one will not at first believe the evidence of his own eyes.

There is, then, a proper position in which to place a subject in order to produce a correct shadow. Having accomplished this result, the operator is still in trouble. The rays constitute true radii, with the point of convergence at the center of the anode of a focus tube; from this point the lines of force proceed straight toward infinity. The first authentic instance of deflecting the force by means of a magnet or lens is yet to be noted, although a magnet will affect the cathode rays in the tube; such being the case, there is the further distortion caused by the radiation of the lines of force.

To rectify this distortion of position and the distortion caused by the radiation of the force, in order that surgeons and physicians might be able to form correct conclusions in Roentgen work, was the problem which presented itself in devising the instrument called the fluorometer,—time will not admit of entering into all the details of the labors in this behalf. My readers are asked to give credit for candor in the statement of results, which have been fully verified in private and hospital practise, as well as in the laboratory.

By means of the appliance which has been called for convenience the fluorometer, the physician or surgeon, or any other experimenter in the field of the Roentgen energy, is enabled to accomplish these results unerringly:

To produce a correct shadow of the subject on the field of the fluoroscope, and to reproduce the effect there observed on the sensitive plate, if desired:

To reproduce on the operating table exactly the position occupied by the subject when the observation and fluorograph were taken:

To furnish an accurate cross-section of the subject, with the foreign object or any desired part of the anatomy in close juxtaposition:

To fix, with exactness, the line through that cross-section upon which any foreign substance in the human organism, which is observable on the fluoroscope, is situated, and by means of markings on the surface establish that line for future exploration:

To establish a second line, at right angles to the first, at the intersection of which two lines the foreign substance is located, with

* Read before the Medical Association of Central New York.

mathematical exactness; that is, a cross-section of the chest is produced, for instance, exactly as if the body were severed at the point desired; then this "end" is divided by straight lines, at the intersection of which is the more or less impermeable object sought:

An undistorted view of any portion of the bones of the skeleton is obtained which can be manifested in the Roentgen shadow. If it be desired to observe a case of congenital dislocation of the hip in a child, for instance, a cross-section of the child's body is obtained, and the observer is furnished also with a vertical line passing through the cross-section, at any or all points desired.

In brief, the endeavor is to furnish a certain and unerring guide to your observations of the interior of the human organism, so far as disclosed in the present state of the art, and supply a chart for exploration which will enable surgeons to proceed with absolute certainty.

Without trespassing in the least on the field of the surgeon or physician, it is the function of the fluorometer to furnish absolute data regarding an object which is more impermeable than its surroundings or other objects, and to indicate its precise situation. The object sought may be a calculus, a bullet, a needle, a bit of glass, or a coin in the alimentary canal; or it may be desired to present an undistorted view of a fracture, a dislocation, or a diseased bone. That accomplished, the appliance has fulfilled its mission. The fluorometer has no knife, forceps, probe, or other surgical attachment. If success has been achieved in furnishing an appliance by which the surgeon can apply his skill to better advantage; if it enables him to more surely avail himself of this wonderful and indeed almost supernatural force, in the alleviation of human suffering and the saving of human life, then the long and somewhat arduous experiments will not have been in vain.

The object of the endeavor has been to make certain that which is uncertain, and to furnish means for unerring diagnosis, so far as diagnosis can be made by means of the Roentgen energy.

Rochester, New York.

RAILWAY SPINE AND LITIGATION SYMPTOMS.*

BY W. W. GRANT, M.D

From a certain class of spinal symptoms and nervous manifestations following, and believed to be typical of, railway accidents is evolved the use of the term "railway spine." The pathological lesion is not essentially different from similar lesions occurring under other circumstances and conditions, and the term may not be a happy one.

The element of fear enters largely into these histories. There is a distinct appeal to the mental and emotional, and with a certain similarity in clinical histories and results they have been, and are by many at least, believed to be peculiar to railway collisions; so we are justified, as railway surgeons, lawyers, and neurologists, in giving them special consideration.

The profession is familiar with those interesting cases following collisions—often called "spinal concussion"—in which there is at no time any evidence of a pathological or anatomical lesion by any clinical or scientific tests at command, but in which the complainant insists there is persistent pain at some point of the spinal column, attended also with various nervous manifestations due to "shock." These cases never recover until there is a definite financial disposition of them. To such cases an English jurist has applied the term "litigation symptoms."

The teaching of Erichsen in applying the term "concussion" to all the structures of the spine is too indefinite in history and pathology, and as it does not represent the best thought and opinion of these later days, cannot be accepted. Concussion of the cord is definite and satisfactory; but the cord is so well protected by environment that concussion is very rare, though *believed* to be common from railway collision.

Actual lesion of the cord from injury is ordinarily fatal, and when it does happen is usually attended with direct manifest injury to some or all of the overlying structures. Meningitis from concussion is equally rare and usually fatal, from whatever cause. It

* Read at Chicago meeting of American Academy of Railway Surgeons.

is not with these and the *unmistakable* injuries of the spine that surgeons, neurologists, railway attorneys and corporations have the most difficulty and trouble. When the surgeon is confident of a severe or serious lesion, his plain duty to both patient and corporation will often prevent lawsuits; and whether his conclusion is just will depend very much upon the character and completeness of his examination. One cannot rely too confidently upon instruments of scientific precision. The "dynamometer, æsthesiometer, audiometer, ophthalmoscope, battery," etc., can be weakened by elements of fraud and deception. Page says plainly that "nothing has struck me as more extraordinary in my experience of railway injuries than that, in the examination of them all, common sense — the best and surest diagnostic guide — should be so often abandoned, and reliance be placed rather on methods of examination which are of scientific value *only* when every suspicion of exaggeration or imposture can be put away."

Only a few years ago it was said "no electric test has yet been found which is not rather a test of the credulity of him who trusts it;" and there is much truth in the statement. The reactions of degeneracy can be proven, and the test is often of much value, but only in the hands of an expert, who is equally familiar with the nervous and muscular conditions sought to be elucidated. The manner of the examination is often defective and unwise. I have known such to be conducted in a way to suggest to the patient symptoms, ideas, and things that he or she had not before thought of; an intelligent, shrewd or dishonest individual will utilize these to his or her own advantage and sometimes to the annoyance of the medical witness and expert.

Not only a full account of the nature of the accident, but the history of the patient prior and subsequent to it, is of the greatest importance: the previous condition of health, the vocation, moral status, mental bias, the conduct and character, all are legitimate matters of surgical inquiry and often necessary to an intelligent and satisfactory explanation of the case.

Erichsen in his work on spinal concussion uses this language: "An extensive experience in railway compensation cases will probably impress you more with the ingenuity than with the honesty of mankind. A history of deception practised on railway companies by alleged sufferers from accidents on their lines would form a dark spot on the morality of the present generation." Yet the writings of this distinguished surgeon gave more character to such claims than any other single agency in this generation, though of course he did not intend to sanction fraud or falsehood.

I believe the statement of Page true, that "molecular disturbance is not necessarily molecular disintegration or pathological change, and there is no evidence to show that molecular disturbance is in itself a grave condition or likely to have evil results." Otherwise it would be something fearful to contemplate the menace to the health of the individual, and the stability of the corporation, from the effects of jar or shock to the nervous system.

I now know that the serious results from railway collisions are manifested at a very early date after the accidents, and in cases where the symptoms were insignificant or so slight as not to attract the special attention even of the patient, and yet at a more remote date — weeks, months, or years — serious symptoms present themselves, it will generally, I believe, be found that some constitutional infection, such as syphilis or tuberculosis, is the chief factor in the case.—And this is as true of the nervous as of the bony and glandular systems.

One hears something now of traumatic hysteria. Of the neurosis resulting from shock or injury to the nervous system, Obersteiner has recently said: "Where we had hoped to establish a firm anatomical basis there was only an undemonstrable functional injury of the nervous system. But it is," he adds, "going too far to regard *all* cases formerly considered as concussions of brain and spinal cord as purely functional." This is no doubt true. It is just as true that most of the spinal cases, so commonly called concussions, are not concussions at all; but if any injury really exists, it is contusion or muscular or ligamentous strain. Many of these cases do not recover promptly, but require considerable rest of the parts. They will recover perfectly, unless the patient is

imbued with the idea that serious results are quite certain to follow "concussion of the spine" from railway accidents.

Under former teaching the opinion, professional and lay, was quite general that the even slighter injuries, called usually concussion of the spine, from railway collisions frequently developed at a later period serious symptoms with often unfortunate results. This is probably exceptionally true only. But with real concussion of the cord are very generally other unmistakable evidences of injury, and we are enabled to form an intelligent and more satisfactory opinion as to the future.

Concussion of the cord being the exception and not the rule from railway collisions, we ought to get away from the unfortunate errors of the past. It is desirable, as soon as possible, to establish the results of railway injuries to the spine upon a pathological basis. Deferred shock is like some of the manifestations of hysteria, emotional or mental. Those cases, with slight complaint or manifestations of injury following railway collisions, do not, as a rule, at a late day assume a grave form, but they are apt to become litigation cases.

My experience with such cases, though commonplace, may yet be beneficial, hence I desire to cite an instance:

Three years ago a woman aged thirty-four, a milliner, was on a Rock Island Pullman at the time of a collision in Kansas. The immediate attendance of railway officials and local surgeon discovered no passenger seriously injured or complaining. But when the woman reached Denver next day she sent for her physician, who found her suffering with slight cold, and did not consider a second visit necessary. In a day or two the company requested me to visit her and report. I found pulse and temperature and pupils normal, and no disturbance of motion or sensation general or special; reflexes normal, but when bending head and shoulders forward complained of pain in upper dorsal region, also on pressure, but there was no discoloration or evidence of blow. At time of collision she was asleep, but says her head struck against the headboard, partially doubling her up (which with head toward engine is not improbable), but there was total absence of contusion, though such a position would favor straining or laceration of spinal muscles and ligaments. She came to Colorado eleven years before for supposed lung trouble, but had been well ever since. I could discover only slight cold, resulting probably from delay and absence of fire in a cold season. I gave her a favorable opinion, but from her manner I felt certain she would demand considerable money, so made two or three visits, and then had her visit me occasionally at my office for several months, in order to watch developments. To be well prepared, a reputable nerve specialist examined the case at this time, applying all the usual scientific tests and finding no evidence whatever of disease. He asked if she observed any peculiar effects from riding in street cars, and, of course, she answered "Yes." Something like fear possessed her, I believe, and, as might be expected, she had never before been affected this way, and but for the suggestion of the examiner I dare say would never have found it out. She demanded $2000 from the company, was offered $500, and brought suit for $1500; and it was tried in the Federal Court two years ago. Notwithstanding dry cupping and rest for two months following the collision the spinal pain never ceased, and she subsequently complained of headache and sleeplessness at times. The day before the trial she was carefully examined again by the neurologist and myself, and pronounced perfectly healthy. She was so well in her pelvic organs as not even to suggest curetting nor a thought of exploratory section. No symptom is of less value as indicating disease of the cord than spinal pain, yet it is ever present and often with varied and ill-defined nervous manifestations.

Now a year after the accident she testifies that she is not yet able to conduct her business. I testified that she was as healthy a woman probably as there was in Denver; that if suffering it was from litigation symptoms, and from these would not recover until the case was finally settled; that sometimes such condition of the patient was malingering for the benefit of the money consideration involved. With some claimants the feeling was honestly entertained that they were suffering from the effects of injury, and though they were doubtless mistaken or de-

luded in this, yet there would be no confession of recovery until the case was definitely settled. The clinical history is often measured by the time consumed in the consideration and final determination of the case.

The neurologist testified that this patient, in his opinion, was not suffering from any disease of the nervous system whatever, but when asked on cross-examination to give an opinion on the claimant's own statement of her condition, he said she might have hysteria. "And is not hysteria a serious disease," was instantly asked, and he replied, "Sometimes it is."

This statement and that of her own physician, that he could find nothing the matter unless it was hysteria, constituted the whole medical testimony in her favor and was, I understand, the only excuse of the jury, if indeed any was needed, for rendering a verdict of $700 in her favor.

Hysteria as a neurosis or as an expression of disorder of the generative system is not a serious condition, and I have been often surprised that even medical experts would upon the witness-stand use the same language and manner before an ordinary jury utterly ignorant of the subject that might be justified before or to a body of scientific men. This discrimination is an absolute necessity in the dispensation of justice to all parties concerned. It is doubtful if a case of importance was ever tried without some medical witness saying something that was unjust to himself and damaging to his cause, and not infrequently because he wished to be supremely scientific and eminently impartial to a body of men incapable of appreciating his meaning.

I meet this woman frequently on the streets of Denver, and I have no doubt of her excellent health and her attendance to business.

Within the last year, a Massachusetts lady visiting her daughter in Colorado was on one of the principal trains entering the State, when it collided with a snow-bank, causing some delay but, on immediate investigation, no injury to any one. Some time after suit was brought against the road by the lady for deafness due to the collision, and the jury gave her a verdict of over $2000. My attention was subsequently called to the case, and in conversation with the railway attorney he said he accepted the statement of the aurist only who attended her, because "it seemed fair." In response to my questions he said no investigation was made as to her previous history, but that her character was a "little shady," and I ventured the opinion her statement as to the ear trouble was probably also of a like nature. If an investigation of her past history in Massachusetts had been made, it is not improbable that satisfactory evidence of previous ear trouble could have been obtained.

The medico-legal relations of these railway cases are of peculiar interest to the railway surgeon and the medical expert. The surgical treatment of actual railway injuries is governed by the same general rules and principles which prevail under other circumstances, but always with due regard to the peculiarities of the environment. With the character and manner of conducting these claims the profession has nothing to do; but it is as much its duty to *understand*, if possible, and to appreciate the motives and conduct of these claim patients, as it is for the lawyer to *prove* them. Generally, I believe the statement true, that when these and the clinical history are at variance with those which should most reasonably be expected under ordinary circumstances, one is justified in suspecting ulterior motives, and these are usually of a financial character.

The hope and anticipation of reward consciously, and unconsciously, influences the course and conduct of individuals in different relations and stations, and this is especially true when compensation for injury and lost time awaits those who are injured in the service of corporations, of which railways afford the most conspicuous example, if not the most peculiar.

It is a matter of common observation that the class of patients under consideration are prone to exaggerate every symptom and fear, and if they are silent or their manner unusual upon the statement of a favorable and early recovery, it is safe to assume that a financial problem is under consideration.

How best to meet the actual and varied manifestations of railway injuries and their consequences, near and remote; to separate the imaginary from the real, and the fraudu-

lent from the honest claimant; and to properly estimate self-interest and the varied prejudices that enter into consideration *nolens volens* in the endeavor to reach a just solution, is a problem that appeals to the best thought, feeling and judgment of every interested party, and the unremitting labor of a learned profession.

The turn of every leaf reveals the dawn of a better understanding and the promise of protection against ignorance and prejudice, fraud and injustice.

Denver, Colorado.

CONSERVATIVE SURGERY.

BY RICARDO ORTEGA, M.D.

The large number of maimed persons I have come across among railway employees prompts me to make a few remarks with a view to enlisting the cooperation of my colleagues in preventing the unnecessary mutilation of the injured.

It is true that ungrateful patients are frequently encountered who blame the surgeon because the member saved (after toiling with it more than would have been necessary had amputation been resorted to) is not in precisely as good a condition as it was before the accident. Others aver those are not surgeons who do not mutilate. But such opinions are of no importance to the medical man who is conscious of having done his best. It is the better plan always to preserve all possible of an injured organism, even at the risk of retaining, for a time at least, that which may ultimately turn out to be an encumbrance.

I have had cases when it seemed to all that to preserve an injured member would be useless or involve a nuisance to the patient; nevertheless I have as an almost invariable rule suggested preservation, and the results have usually more than fulfilled my hopes.

Among others I remember the case of one Griffin, a locomotive engineer, who had his left elbow crushed. The wound showed a compound comminuted fracture of the upper epiphysis of the radius and ulna, and lower part of the humerus. Splinters of bone showed through and were extracted from the skin. My colleagues proposed amputation, but I succeeded in having it deferred until it should become absolutely necessary. Such necessity never occurred, for with proper, clean, antiseptic treatment and infrequent dry dressings the arm was saved, and later on the patient became known as one of the most efficient enginemen on the road.

In my thesis on soliciting admission to the National Academy of Medicine of Mexico I referred to the case of an articular gunshot wound. The larger portion of the bullet lodged in the tibio-astragalian articulation, and the smaller fraction in the soft parts in front of the same articulation. The wound was infected by pieces of sock driven in by the bullet. Yet at the proper time I extracted the bullet and the patient entirely recovered the use of his foot.

I could cite many other cases of similar nature, but it will, I think, suffice to add that since 1888, the year I entered the service of the Mexican International Railroad as surgeon, the only amputations I have been obliged to make have been one forearm at the lower third portion, one foot at the height of the metatarsus, and two fingers.

Those who are respected for knowledge and experience will doubtless impress the importance of following the humane precept of saving all that can be saved in the minds of students and young practitioners whose enthusiasm and lack of experience may lead them, at times, to adopt the circular method and amputate when no real necessity exists.

There is nothing so easy as to thoroughly clean a wound and the surrounding skin. In the case of train and shop men it is often unnecessary that the washing process be extra thorough if the skin has been stained with lubricating oil, because, although I have had no opportunity to make a bacteriologic examination of that substance, it is my impression that it has aseptic qualities, since in nine years' practise I have yet to detect a case of poisoning from contact with black oil. Possibly its aseptic qualities are due to its having been subject for a long time to heat caused by friction in the machinery.

The washing I have mentioned can be followed by henustatre treatment; then cover the bloody surface and fill in the interstices with antiseptic salve, such as iodoform or

salol, five grammes; analgesin and borate of soda, each one gramme; and vaselin, thirty grammes. This has an advantage over powdered iodoform in that it prevents the gauze and cotton, which complete the dressing, from adhering to the wound, and does away on their removal with the considerable pain on tearing of soft tissues, so common, that also tends to delay in healing.

A crushed member can be kept dressed in this manner for fifteen, twenty, or more days, if no indications appear in the interval that the dressing should be removed; and this seldom occurs, because the flaps which unfortunately become affected with gangrene are surrounded with a poliantiseptic salve which prevents their infecting other parts of the wound. Many of these diseased flaps, which are usually considered impossible to preserve, surprise the surgeon not only by living but by adhering properly if adequate precautions have been taken to place them. Then one is not obliged to intervene so often, but if intervention becomes necessary it will be found the patient is in a better condition, and no longer under the influence of the shock. Before wrapping up the member it is essential to remove its extremity if only held by a few tendons or a flap of skin or muscle insufficient for nutrition; also if the stump has a tendency to assume a conical shape it is well to trim it. But all this can be done without risk.

Doctor Paul Reclus, in an able article on the subject published last year in the *Revue de Chirurgie*, advises the use of bichloride of mercury and carbolic acid in small quantities in addition to the poliantiseptic salve, and the insertion of gauze in all the spaces. This last suggestion appears to me as very appropriate in the case of large crushed wounds. He ends by saying: "Henceforth we shall have no traumatic amputations."

In preserving instead of amputating an injured member one performs a more humane duty, and accomplishes a practical purpose; besides it saves the company from payment of heavy indemnities.

The manufacturer of artificial limbs, of course, may suffer from these efforts, but fortunately he can direct his energies in other directions.

Ciudad Porfirio Diaz, Mexico.

TUBERCULOSIS OF BLADDER CURED WITH NUCLEIN SOLUTION.

BY DOCTOR R. L. BOTSFORD.

William S——, about 38 years of age, a well-to-do farmer, suffered with tuberculosis of the bladder for eighteen months. The disease was not correctly diagnosed until he paid a visit to the Victoria General Hospital in Montreal, when the case was pronounced incurable, and he returned home to die.

I was consulted by friends of the patient, and told them I had heard of nuclein solution through literature furnished by Parke, Davis & Co., and advised its use. It was employed, really as a last resort. At this time he was suffering excruciating pain in the bladder and rectum, the pain running through the lower extremities, with desire to pass urine every fifteen minutes day and night; he also passed shreds of the lining of the bowels per rectum. The bearing down pains were so severe that he had to place one foot on a chair and lean forward; in this position he felt most ease. His appearance was like a man of 80, and he stooped and had to support himself with a cane. The urine had been examined microscopically and found to contain the bacilli of tuberculosis.

Treatment was commenced on March 5th, 1894, with daily hypodermatic injections of nuclein solution one-per-cent., P. D. & Co., in the muscular part of the thigh, commencing with ten minims and increasing daily until eighty minims was reached, which was continued until May 15th, when he commenced taking the five-per-cent. solution by the mouth. His urine was examined frequently and found gradually to contain fewer and fewer bacilli, until ultimately, after a searching examination, it was found to be completely free.

Three weeks after the treatment began improvement was very noticeable, the pains gradually decreasing and becoming bearable; and instead of passing urine every fifteen minutes he was able to go without micturition from two to three hours. He soon began to take daily exercise and improved rapidly.

In September he was out on the farm working in the fields.

Moncton, New Brunswick.

THE MEDICAL AGE.

A SEMI-MONTHLY REVIEW OF MEDICINE.

—PUBLISHED BY—

WILLIAM M. WARREN, Medical Publisher, Box 470.

All communications regarding papers, reports, etc., should be addressed to the Editor of the MEDICAL AGE, P. O. Box 470, Detroit, Mich.

Matters relating to advertising space, etc., to be addressed to the publisher, William M. Warren, Box 470, Detroit, Mich.

The editor cannot engage to return rejected manuscripts or to correspond with the writers thereof, unless such are accompanied by sufficient postage.

DETROIT, MICH., NOVEMBER 10th, 1897.

Editorial.

CHOLAGOGUES.

During the past two or three years a great deal has been said in medical journals regarding this class of remedies, and from time to time lists have been published. The latest addition comes from the *Berliner Klinische Wochenschrift*, which says:

Bicarbonate of sodium, chloride of sodium, sulphate of sodium, etc , have no true cholagogue action.

Gamboge, jalap, aloes, scammony, senna, are drastic substances, have no assured cholagogue action, and often diminish biliary secretion.

Alcohol and olive oil diminish biliary secretion more often than they increase it.

Atropine and pilocarpine invariably diminish biliary secretion.

Acetanilid, caffeine, santonin, etc., are of doubtful action.

The substances truly cholagogue are salicylate of sodium, calomel, and bile.

Salicylate of sodium is very far from having the cholagogue action with which it is so often accredited; in this respect it is greatly inferior to muriate of sodium.

Also in the foregoing list the fact is ignored that the action of each and every remedy mentioned depends entirely upon the dose in which it is administered and the circumstances which call for the same. As a matter of fact there is not one on the list but what has a cholagogue action under certain circumstances, acetanilid, caffeine, santonin, olive oil, and atropine excepted. No one familiar with the action of pilocarpine would substitute it as a cholagogue for jaborandi. The cholagogue action of bile *per se* is at best hypothetical, when administered solus.

Cholagogues not mentioned and that are definite in action are colocynth, podophyllin, leptandrin, euonymin, irisin, and croton oil. This list might be considerably augmented, but the foregoing are mentioned merely as samples of "what are left out." As with these, so with others, as before noted, a deal depends upon the knowledge of the prescriber and his ability to fit the dose to the demands of the individual case.

If modern physicians would study the old drugs more and not be everlastingly "running after strange gods" it would be safe to say their therapeutic knowledge would be greatly enhanced.

THE ROYAL COLLEGE OF PHYSICIANS.

The *Post-Graduate* of New York remarks: "This is not exactly a governmental organization, but the highest medical body in Great Britain." It also adds: "A man may practise medicine without being a fellow or member of either college, but he is of an inferior grade, his qualification being much lower, coming, we believe, from Apothecaries' Hall."

As a matter of fact some of the ablest men of Great Britain have held their licenses from Apothecaries' Hall. A man may be granted permission to practise by the College of Physicians without either being a fellow or member—in this case he is simply a licentiate; but the matter of grade is one that is not at all regulated by any special body. A certain examination is required to obtain a qualification, and it matters little where obtained.

The same journal states that in Scotland the degree of M.D. is given, which constitutes a qualification, which is not strictly correct—or rather it is misleading in that it assumes it is necessary before attempting practise. No one obtains an M.D. degree at any of the universities of Scotland until after he has been a licentiate of the College of Physicians for a certain period, or has accomplished certain work.

It is somewhat remarkable the number of loose statements that find their way into print on the hither side of the Atlantic regarding medical teaching; and as an instance of the strength of the universal ignorance displayed, a certain university, through its third rate medical department, has for years ad-

vanced the claim it affords a much better medical education than any teaching body in the United Kingdom or on the Continent of Europe.

WHAT IS IT?

Editor MEDICAL AGE:

In your September 25th number of THE MEDICAL AGE, page 563, I notice the three cuts of the supposed *lusus naturæ*, purported to have been taken at Matanzas Inlet, Fla. During the present summer, while on my vacation, I spent some time in Atlantic City, and while walking on the board walk I was attracted while passing what is known as the pier by seeing several of these creatures nailed to a post; of course they were freshly caught. They were practically identical with the figures published in your journal, with the exception that the fins on both sides were a little larger and extended a little further down. The rudimentary legs were not quite as long, and of course the fish is flat. The drying and mounting in a standing position also gives it a more peculiar appearance. The tail is long and resembles to some extent the tail of what is known as the stingaree. The face in the picture is an exact reproduction of the original as I have seen them, resembling a little pig face. These fish surely do exist. I was told the popular name for them, but it has escaped my memory. As I said before, the drying and mounting in a standing position gives it a little more peculiar appearance, but at best it is one of the most peculiar fish I have ever seen.

Yours very truly,

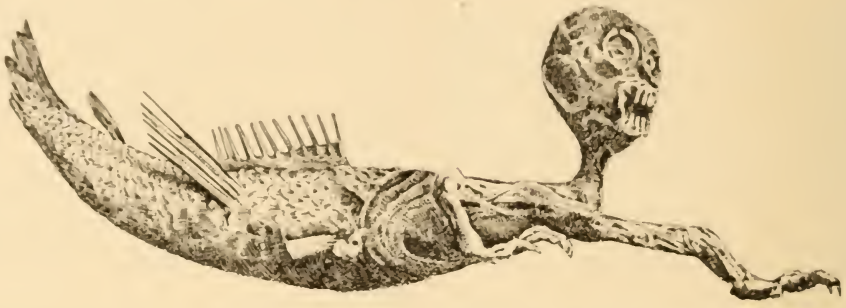
HENRY J. SCHERCK.

St. Louis, Missouri,
Oct. 12th, 1897.

We are glad to receive this communication. The photographs as reproduced were sent to us as a curiosity by the editor of the *Dominion Medical Monthly* (Doctor W. Beattie Nesbitt), but gave no adequate idea of what the creature might be; and second, neither Good's Ichthyology nor any of the publications upon salt water fishes offers any description that can be identified as pertaining to this peculiar creature.

We would be very glad if Doctor Scherck could afford some further information with regard to the character and relationship thereof.

We certainly had great reason for doubting the validity of the creature considering the fact that it appears in no work on ichthyology; and furthermore, from the way in which it is mounted (as shown by the photographs) it resembles very much, as we have before mentioned, certain manufactured articles which come from Japan. In evidence we exhibit a portrait of a mermaid as prepared by Japanese artists.



PATHOLOGY IN FICTION.

It would appear as if the average lay author is continually itching to dabble in medicine, and especially those branches of which he must necessarily know the least. Once in a while, however, a graphic description appears penned by an expert hand: for instance, Charles Lever, who was a physician and was very clever in weaving into his novels medical matters.

Recently in looking over a copy of *Chambers' Journal* we came across a tale entitled "Wourali," which deals with curare (wourali; ourali) and offers a description of poisoning therefrom, the scene being laid in British Guiana.

The hero of the tale has had a dagger thrown at his head by a jealous woman, the blade happening, however, to only just graze his hand:

"It is nothing serious; only a scratch, but I think my nerves must be a bit upset. It has made me feel horribly tired. I'll go and lie down in the boat for a while, and let you fellows finish your smoke. I've got a bit of a head."

"Mackay, you're crying," exclaimed Wilson, "and the sweat is simply pouring down your face. You're pretty badly hurt."

"Crying!" shouted Phil. "Wilson, that dagger is poisoned!"

"Poisoned? You don't mean"—

"Yes, I do. It's 'wourali;' copious secretion of sweat and tears, headache, feeling of extreme lassitude—those are the exact symptoms. Off with that bandage, Mac."

"Good heavens! he's done for," said Wilson.

"Done for? Not a bit of it. Off with that bandage; I'm going to suck the wound!"

I had just got energy enough left to protest against his doing this, but he insisted, and I was too feeble to prevent him.

"Nonsense, man," he said; "I'm safe enough. The stuff isn't a poison taken internally, even if I do manage to swallow some."

He put his lips to the wound, and then I closed my eyes and everything became blank.

It must have been hours afterwards that I began slowly to regain, I can't say consciousness, but an indefinite sensation of existence, and horrible weariness. It seemed to me that I was swimming on and on somewhere in a vague, purposeless way, and I was very, very tired. I call it swimming, but that isn't an exact description. I could feel my arms moving back and fore with a steady rhythmical motion, but the rest of my body was absolutely still. I was almost suffocating for want of air, but I didn't seem to have strength to gasp. How long that sensation lasted I can't say, but it must have been a very long time. I wouldn't voluntarily go through another hour of such unutterable and helpless misery for anything you could offer me. I tell you it has given me my theory of what future punishment may be like.

As consciousness gradually returned, the feeling of infinite weariness became more and more unbearable. My arms were still swinging backwards and forwards like a couple of animated pump-handles, and I was quite unable either to stop them or to move any other part of my body. Try and imagine the sensation; it was simply awful.

When I did finally come to myself so far as to know what was going on, I did it pretty thoroughly. You know the theory that when a man loses the use of his eyes his senses of touch and hearing become unusually acute. From my experience that day I can quite believe it. I had lost all power of motion, and my perceptive faculties became, to compensate, most uncomfortably keen. I felt as if I could almost see through my closed eyelids.

Phil told me afterwards that the peculiarity of "wourali" poisoning is that if the dose is not very large only the nerves of motion are paralyzed, while those of sensation become abnormally sensitive. I knew everything that was going on round me, and I could hear every word they said, but I couldn't even wink to let them know I was alive. They had stuck a knife-handle between my teeth to keep my mouth open, and the weariness in my arms was caused by the fact that for nearly a day and a night Phil and Wilson had been taking it in turns to practise artificial respiration on me.

"Edgerton," I heard Wilson say, "do you think it's any good going on longer? He hasn't breathed now for nearly twenty hours. I believe he's dead."

"We'll go on as long as we can stand!" said Phil, and I blessed him for it. "If we can only keep the artificial respiration going till the poison is eliminated he will recover. For God's sake, keep it up as long as you can, Wilson."

"If you think there is the slightest chance of saving him I'll go on; but I don't think I can last out much longer."

"He's still warm, Wilson, and I won't give up hope as long as that is so."

That was a nice, cheerful conversation to overhear, wasn't it? Listeners never hear good of themselves it is said, but I doubt whether the most persistent eavesdropper ever had the pleasure of hearing a man pronounce him dead, without being able to contradict the statement. If I hadn't begun to breathe spontaneously pretty soon after that I should never have had the opportunity of contradicting it. Phil and Wilson couldn't have gone on much longer. How they kept it up for the length of time they did I have never been able to understand. The power of friendship is very much underrated.

It must have been about two hours after Wilson had declared I was dead that Phil saw my eyelids begin to twitch.

"At last, Wilson!" he cried. "Go and get some water from the river."

They dashed the cold water over me, and it caused me to gasp slightly. It was enough, I had begun to breathe again. They carried me to the boat, and as soon as they saw the danger was over they, both of them, sat down on the bottom boards and fell fast asleep. In a very few minutes after them I was asleep, too.

Nearly fifteen hours after that I woke, feeling rather weak and faint, but otherwise as right as a trivet. The other two were still asleep, and I didn't wake them.

That is the story, and I don't think I was guilty of an exaggeration when I told you that for a day and a night I had known what death was. A man who remains for twenty-four hours without once drawing a breath may fairly claim to be dead, I think.

EDITORIAL NOTES.

Swallowing of Foreign Bodies by the Insane.—

Recently has been reported in several exchanges the case of an insane man in Morris Plains Asylum who presented a large number of foreign bodies, "to the number of over two dozen," in the stomach. The man "had melancholia, which had passed into dementia,

and he had swallowed the objects at different times, extending over months, for suicidal purpose."

There is nothing particularly remarkable in the foregoing, as the insane are quite apt to swallow foreign bodies, and not necessarily with a suicidal purpose. We recall the instance that occurred recently in a Canadian asylum wherein the patient for "pure devilment" swallowed an electro-plated dinner-knife and its accompanying fork, and likewise a plated dessertspoon. Suicide was not thought of in this case, but the act was intended as a means of annoying the attendant. The friends of the patient refused to permit an operation, and he died three months subsequently. At the post-mortem the spoon and knife were found in the transverse colon; the fork in the ascending colon, where it had caused perforation. It was subsequently discovered that an insurance of $3000 had been placed upon this young man's life, which accounts for the refusal of his parents and brother to permit surgical interference.

Cure for Tobacco Habit.—

The *Medical Bulletin* and *Hot Springs Medical Journal* recommend the following:

Gold and sodium chloride, 4 grains.
Strychnine nitrate, 2 grains.
Nitroglycerin, ½ grain.
Fluid extract digitalis, 20 minims.
Capsicum, 25 grains.
Salicin, 100 grains.
Cinchonidine sulphate, 100 grains.

To be made into pills and one taken three times daily.

We publish this simply as a curiosity, and it is practically the formula used by two or three proprietary concerns; but we must express our skepticism as to any value being obtained therefrom. For all we have known the antitobacco proprietaries to be used in scores of cases, we have yet to find a single one where the tobacco habit was in any sense antidoted.

Beri-Beri in Ireland.—

For two or three years this malady has persisted in Richmond Asylum, Dublin. Early in June there were fifteen cases, twelve being female patients and three nurses; and with August it is announced there are twenty-one. *Truth* says this is merely what has happened for some time past, viz., that the disease dies down in winter, and the sapient authorities congratulate themselves on having stamped it out; but as soon as summer comes around again it makes its appearance with unfailing regularity.

The most serious part of the matter is that it is admitted by the authorities that the disease cannot be eradicated from the asylum itself. If this is true its dissemination beyond the asylum walls is only a question of time.

Considering the knowledge we have of this disease it seems very strange that the Irish authorities do not at once segregate the patients, and if necessary tear down the building.

A Hospital Ward of Glass.—

An interesting departure in the construction of hospital wards is in progress at the Temperance Hospital in the Hampstead Road, London, namely, a ward of glass. The material employed is of an opaque white color, resembling porcelain with a high sheen. It is fixed in the shape of rectangular tiles about an eighth of an inch thick on a background of cement, and is "pointed" as bricks are when finished. The idea is that the surface offers the least possible hold for the development and growth of microbes, and by turning on a hose the walls can be thoroughly cleansed with no trouble.

Pneumonia.—

In a recent paper by Doctor Bishop especial stress was laid upon the bath, and many of the arguments used in favor of the latter in typhoid fever were applied. Aside from "general principles" the Doctor spoke of bromides in securing sleep and quieting restlessness.

Bromide of sodium is often of especial value when given in large doses in conjunction with gelsemium.

Large Incomes.—

We know many physicians who do the world $10,000 worth of good each month, but they would gladly take $250 a month in cash for their services. It is easy to "book" a large "income."—*Practical Medicine.*

Items and News.

Varnished Wall-Papering.—

A German technical journal describes a process which it declares renders wall-paper almost everlasting. "It may be washed daily for years, even with a brush, without injury, and still look fresh and well," is the statement made. The process is as follows: For a room eighteen feet long by fourteen wide, and twelve to fourteen high, take two pounds of best crystal glue or gelatin, and dissolve in sufficient water to make a wash for the room. After carefully dusting the paper, with a soft brush evenly apply the solution over the surface, let stand for at least twenty-four hours, or until thoroughly dry, then go over with dammar varnish thinned sufficiently to flow easily. Before putting on this coat it is advised that the varnish be tried on a small portion of the papering, to test whether the glue solution is sufficiently concentrated. If the dammar causes spots of unequal absorption to show on the paper, it is evidence that sufficient glue has not been used and a second coating will be necessary.—*National Druggist.*

[One advantage is, the walls may be readily cleaned with a damp cloth.—ED.]

Spinal Irritation.—

This term should be banished from medical nomenclature. The pain and tenderness along the spine commonly known by this name have nothing to do with the spinal cord or its membranes, or with the spinal column. In so-called spinal irritation there are tender points along the spine. If these change their location every five or ten minutes such shifting demonstrates that the disease, so far as the tender parts are concerned, is entirely functional and situated not lower than the cerebral cortex. Upon the correct differentiation between positive spinal irritation and functional disturbance, the seat of which is probably in the cerebral cortex, the success of the treatment in a great measure depends. —PATRICK, in *Medicine.*

"Death-chair."—

In a story which appeared in *Chapman's Magazine* Harold Child refers to the "death-chair" which is in use in Gloucestershire, England. Many of those whose dwellings are on the banks of the Severn die of bronchitis. When the end is near and the sufferer cannot breathe lying down, he sits over the fire propped up in the "death-chair." The high back shelters him from draughts, and the projecting wings are meant to support his head when it falls over quietly in death. A "death-chair" stands in the best bedroom of every farmhouse, and the parson and squire each keep one to lend to cottagers in time of need.—*British Medical Journal.*

Resection of Bowel.—

The longest piece of bowel removed from the human subject is eight feet—by Doctor F. J. Shepherd, of Montreal. Kocher, of Berne, has removed eighty-two inches; Koeberle, of Strassburg, seventy-eight inches; Lanphear, of St. Louis, sixty-three inches; and Elliott, of Boston, four feet. Shepherd's case was one of fibroma of mesentery in a man twenty-eight years of age, who had first noticed the enlargement of the abdomen over a year before operation, which latter was performed in January last. He had never suffered any pain.—*American Journal of Surgery and Gynæcology.*

Physiology in Public Schools.—

The smattering of physiology with other things of doubtful utility now taught in public schools is absolutely worthless, and according to high medical authority even hurtful. A prominent New York physician on a late visit to a well known girls' college was invited to attend the class on physiology. The instructress, proceeding to demonstrate the uterus and ovaries, used a cat for the purpose. The class dismissed, the doctor happened to look at the cadaver, which, to his utter astonishment, proved to be a "tom-cat." —*Journal of the American Medical Association.*

Kissing as a Digestive.—

A number of English authorities say that kissing, instead of being a menace to health, is an excellent method of administering a microbe tonic of great value in aiding digestion. The theory is that the act of kissing involves only an exchange of microbes that are health-giving. Is this science or sentiment? Will these romantic gentlemen be so good as to follow their assertions with detailed reports of specific cases in their personal professional experience? It would make exceedingly spicy reading.—*Echo Medical du Nord.*

Ink for Glass.—

A new ink that will write on glass, that can take the place of paper labels on bottles, etc., and is indelible, is made by dissolving twenty grammes of brown lacquer (not heated) in 150 cubic centimeters of commercial alcohol,

and mixing this, a drop at a time, with a solution of thirty-five grammes of borax dissolved in 250 cubic centimeters of distilled water. It can be colored as preferred; one gramme of methylene violet, for instance, will produce a handsome ink.—*Noveaux Remèdes.*

Poisoning by Insect Powder.—

An infant aged eleven months, playing with a cardboard box of pyrethrum flowers, broke the lid, and got the powder into eyes, mouth, and nostrils. When medical aid arrived convulsions and vomiting had set in; the heart beats were feeble, and the respiration slightly quickened. After carefully removing the adherent powder, an emetic of ipecac produced free vomiting, and except for slight inflammation of the conjunctivæ the child quickly recovered.—*Bulletin Général de Thérapeutique.*

Diagnosis by Germs.—

Disputes between private practitioners and members of health boards as to the diagnosis of diphtheria are becoming common. These illustrate the utter absurdity of health board methods, injure the doctor by reflecting upon his skill, and hurt the patient by leading him to neglect a disease attended by grave complications and sequelæ.—*Medical Brief.*

An Advertising Doctor.—

Pills: "Dosem has been expelled from the medical association for advertising contrary to the code."

Squills: "How did he advertise?"

Pills: "Called to lead the prayer meeting the other evening, he walked up to the front and gave out the hymn, 'The Great Physician Now Is Here.'"—*Exchange.*

Artificial Diamonds.—

A French chemist, M. Moissan, has discovered diamonds can be made by saturating melted iron with carbon, and then cooling under strong pressure. At a recent meeting of the Paris Academy of Science Rossel exhibited magnified photographs of several minute gems taken from bits of steel.

Cerumen and Deafness.—

A case of deafness of seven years' standing was relieved recently by removal of a plug of cerumen. The ear syringe directing a jet of hot water along the upper posterior border of the meatus is nearly the only method for the removal of cerumen or other foreign bodies.—*Philadelphia Polyclinic.*

Plants and Anæsthetics.—

Vegetable growths are subject to the influence of ether and chloroform, but the effect is to awaken instead of putting to sleep. The anæsthetics seem to act as a stimulant, plants under their influence growing rapidly either in or out of season.—*Exchange.*

Doubtless!—

A writer in one of our medical exchanges maintains that bicycling is very "beneficial to young girls who are developing into manhood." It certainly helps them along that way.—*Southwestern Medical Record.*

Origin of Cards.—

Charles VI, of France, was afflicted with melancholia and was, in fact, almost incurably insane. To interest and amuse him the game of cards was introduced at court in 1392.—*Alienist and Neurologist.*

Paper Horseshoes.—

Paper horseshoes are now being used in some of the large cities. They are, of course, lighter, and are said to last longer than those made of steel and do not slip as readily as the latter.—*Scientific American.*

So-called Rabies—

Is becoming alarmingly frequent lately among the mongrel curs belonging to nobody, and some efficient steps should be taken at once to put a stop to this menace. —*Cleveland Medical Gazette.*

Micro-organisms in Mothers' Milk.—

Koestlin claims to have discovered bacteria in ninety-one per cent. of samples examined of mothers' milk. *Query.*—Shall mothers be quarantined as a "menace" to the public?

Rabies.—

The death from rabies of eight patients sent to the New York Pasteur Institute is a significant commentary on the value of this treatment.—*Medical Brief.*

Common Sense.—

Doctors should check the growth of the idea that consumptives are dangerous pests. —*American Medico-Surgical Bulletin.*

Sound Sense.—

What to do while awaiting the arrival of the physician: Nothing!—*Medical Exchange.*

Book Reviews.

THE STORY OF CANADA. By J. G. Bourinot, C.M.G., LL.D., D.C.L. Cloth; small 8vo; pp. 463. Price, $1.50. The Clark Co. (Limited), Toronto; G. P. Putnam's Sons, New York.

This is No. 46 of a series of volumes issued simultaneously in Canada, the United States, and England, known as The Story of the Nation Series. The purpose is in each instance to present in graphic narrative the stories of the different nations that have obtained prominence in history.

So far as Canada is concerned, no person was so fitted for this task as Doctor Bourinot, who for years has been Clerk of the Canadian House of Commons, and who, moreover, is the author of several works on the constitution, history, and government of the Dominion and its various Provinces. He very modestly declares his inability "to do more within the space at his command than briefly review those events which have exercised the most influence on the national development of Canada from the memorable days when the bold French adventurers made their first attempts at settlement on the banks of the beautiful Annapolis and on the picturesque heights of Quebec down to the establishment of confederation, which extends from the Atlantic to the Pacific Ocean." Nevertheless the volume is one which is replete with the events which have made Canada famous, and presents historical instances not only in a faithful manner, but in a way such as has never hitherto been attempted by any other writer. There is not a sensational line in the volume, and neither is there a single chapter that does not fairly rival the best work of fiction in its hold upon the reader. The first chapter deals with the Canadian Dominion from Ocean to Ocean; then follow successively The Dawn of Discovery (1497 to 1525); The Discovery of Canada's Great River (1534 to 1536); From Cartier to De Monts (1540 to 1603); The French Occupation of Acadia and Founding of Port Royal (1604 to 1614); Samuel Champlain and his Explorations (1608 to 1635); Gentlemen Adventurers in Acadia (1614 to 1677); The Canadian Indians and the Iroquois; Convents, Hospitals, Martyred Missionaries, Victorious Iroquois and Hapless Hurons; Years of Gloom, the King to the Rescue and the Iroquois Humbled; Canada as a Royal Province; The Periods of Exploration and Discovery, the Fur Trade, and the Condition of the Domain of France (1634 to 1687); From Frontenac to the Treaty of Utrecht (1672 to 1713); From the Treaty of Utrecht to the Treaty of Aix-La-Chapelle; The Struggle for Dominion in the Great Valleys of North America, and the Winning of Canada by Wolfe on the Plains of Abraham (1748 to 1763;) The Pontiac War, Quebec Act, etc. (1760 to 1774); The American Revolution, Invasion of Canada, etc. (1784 to 1793); Coming of the Loyalists (1783 to 1791); Foundation of New Provinces and Establishment of Representative Institutions (1792 to 1812); The War of 1812 to 1815, and Patriotism of the Canadians; From 1815 to 1840, a period of political strife and rebellion; The Federal Union and Relations between Canada and the United States (1839 to 1867); Acquisition of the North West, Formation of the Province of Manitoba, Riel's Rebellion, the Indians, etc. (1870 to 1885); British Columbia, Prince Edward Island, and Their Admission into the Union; Canada as a Nation, its Material and Intellectual Development and Political Rights; French Canada.

As a whole this is the most complete and concise work ever published, and it is to be hoped it will speedily find a place in public schools. Though treating of Canada, it is of value to all North America, of the history of which it is a part.

Especially commendable are the very numerous half-tone engravings, very carefully prepared outline maps, and the reproduction of many ancient sketches, paintings, etc. It is a book equally available for school or fireside, for youth or adult.

THE PRACTICE OF SURGERY. By Henry R. Horton, M.D., and B. Farquhar Curtis, M.D. Cloth; 8vo; pp. 1240. The J. B. Lippincott Co., Philadelphia.

The object aimed at by the authors of this volume has been eminently practical. They recognize the fact that to give a synopsis of the science in one volume each year becomes a more difficult task owing to the extension of the field, especially since the adoption of aseptic methods. They have, however, succeeded in condensing within reasonable limits the information essential to the general practitioner or to the student in order to be thoroughly informed as to the essentials. This information includes, first, a description of the various injuries and surgical diseases, which is made sufficiently full to enable any medical man to recognize when met with; full directions in the treatment of such injuries; a sketch of the treatment of the more difficult conditions, and such as would allow the practitioner to advise patients intelligently in obtaining special skilled surgical attention; and finally, an outline of the exact facts, and especially as regards ætiology and pathology, sufficient to form a foundation for a clinical picture and give directions and treatment. The success which the authors have attained is far more than could have been imagined to one who has not had practical experience in condensation; and a careful examination of more than a thousand pages evidences that nothing really essential has been left out.

A book of this character has been needed and will be valuable, inasmuch as the so-called "Systems" latterly published are for the most part voluminous and prolix, and it is necessary to seach a vast amount of material in order to obtain a modicum of information. Finally, the so-called systems are not written from the standpoint of an individual author, but being from a number of pens, and embodying conflicting ideas, are val-

uable chiefly as side references; they are impracticable to the general practitioner who wants immediate and concise information. All these the work fulfils in most complete degree, and we can cordially recommend it in every particular.

ANNUAL OF THE UNIVERSAL MEDICAL SCIENCES FOR 1895. Edited by Charles E. Sajous, M.D. Volumes I and II. Cloth; 8vo; pp. 681 and 589. The F. A. Davis Co., Philadelphia.

The first volume opens with a thorough discussion of "Diseases of the Lungs and Pleura," by James C. Wilson; "Diseases of the Heart and Blood-vessels" is by Edward N. Whittier and Herman F. Vickery; "Diseases of the Mouth, Stomach, Liver, and Pancreas," by Albert Robin (Paris); "Intestinal and Other Parasites and Diseases of the Intestines and Peritoneum, including Cholera," by J. P. Crozer Griffith; "Urinalysis and Diseases of the Kidney, Bladder, and Adrenals," by Alfred Rubino (Naples); "Diabetes Mellitus," by R. Lépine (Lyons); "Fevers, Influenza, and Variola," by Judson Daland; "Infectious Diseases of Children," by J. Lewis Smith and Henry C. Hazen; "Intubation," by Joseph O'Dwyer; "Rheumatism and Gout," by N. S. Davis, Sr.; "Diseases of the Blood and Spleen," by Frederick P. Henry.

It can only be added that the volume is a very complete epitome of the subjects treated of, and the literature of the previous twelve months has been thoroughly exhausted of all of value.

In the second volume, "Diseases of the Brain" is by Landon C. Gray and William B. Pritchard; "Diseases of the Spinal Cord," by H. Obersteiner (Vienna); "Peripheral Nervous Diseases, Muscular Dystrophies, and General Neurosis," by René Semelaigne (Paris); "Mental Diseases," by George H. Rohe; "Inebriety, Morphinism, and Kindred Diseases," by Norman Kerr (London); "Diseases of the Genito-Urinary Apparatus in the Female," by E. E. Montgomery; "Diseases of Pregnancy," by A. Lutaud (Paris); "Obstetrics, Puerperal Diseases and Diseases of the Mammary Gland," by Egbert H. Grandin; "Diseases of the New-born and Dietetics of Infancy," by Andrew F. Currier; "Bacteriology," by Charles E. Sajous. There are the usual Index, Reference List of Journals, etc.

TRAUMATIC INJURIES OF THE BRAIN AND ITS MEMBRANES. By Charles Phelps, M.D. Cloth; 8vo; pp. 582. D. Appleton & Co., New York.

This work is designed to be a concise and systematic exposition of the injuries which the brain suffers from as the result of external violence. It is at first somewhat disappointing that it does not cover the entire ground one is led to suspect from its title, and much that appears in other volumes has been neglected, and much also that has appeared within the last twenty years in periodical literature has also been ignored. On more careful examination, however, it is found that the volume is chiefly a relation of experiences of the author and the deductions he draws therefrom. In this respect it is in a measure unique and possesses a value peculiar to itself; and notably it is the most complete study of pistol-shot wounds of the head in their medico-legal and surgical relations that has ever been published.

It will not only be of interest to surgeons, but will prove valuable to general practitioners in whose experience such injuries are infrequent, and who in exceptional instances have urgent need of the aid to be derived from a wider clinical observation than their own opportunities have permitted. As the author remarks, "it has been based essentially, if not exclusively, upon observation of five hundred consecutive cases of recent occurrence, from which three hundred have been selected for publication." He further adds: "The generalizations which have been made, and the conclusions which have been reached from clinical observation, have been varied in every instance by necroscopic examinations."

AN EPITOME OF THE HISTORY OF MEDICINE. By Roswell Park, M.D. Cloth; 8vo; pp. 348. The F. A. Davis Co., Philadelphia.

This very complete History by one of the best known surgeons in the United States will commend itself to every member of the profession. It was originally published as a serial in THE MEDICAL AGE and commanded wide reading and repute. It has now been enlarged, elaborately illustrated, and printed in book form.

The author does not pretend that it is a wholly original work, but that it is an epitome of what has been heretofore published. We cordially commend it to every individual interested in the history of medicine.

PRACTICAL DIAGNOSIS. By H. A. Hare, M.D., B.Sc. Cloth; 8vo; pp. 605. Price, $4.75. Lea Brothers & Co., Philadelphia.

Fourteen months ago we had occasion to review the first edition of this book, when the remark was made that the author's endeavor was to deprive the art of diagnosis of most of its difficulties by treating exclusively from a clinical standpoint. This second edition is, as Doctor Hare remarks, necessitated by the first having been rapidly exhausted; and he further adds that the unavoidable faults of the first edition have been expunged and many new facts added. In this edition the two indexes of the first have been combined to avoid confusion.

ON ANIMAL ELECTRICITY. By Augustus D. Waller, M.D., F.R.S. Cloth; 8vo; pp. 144. Longmans, Green & Co., London and New York.

This contains the greater part of the material of a course of twelve lectures on Animal Electricity delivered at the Royal Institution in the early spring. The author has gone very thoroughly into the subject and adduced some very interesting experiments and theories; indeed, he appears to have

in part discovered a reasonable theory of nerve action. We cordially recommend this volume to every individual interested in electricity from either the standpoint of general science or those of physiology and therapeutics.

THE PHYSICIAN'S PERFECT CALL-LIST AND RECORD. By Doctor G. Archie Stockwell, F.Z.S. Flexible morocco; long 16mo; pp. 200. Price, $1.50. William M. Warren, Detroit.

The fact this publication has reached its twelfth year is sufficient evidence of its increased popularity and practical usefulness. Its paper and binding are alike superb. In size and shape it is by long odds the most convenient and the best of the "Visiting Lists," and moreover it will not crumple or break down in the pocket.

A prominent feature is the absence of all advertisements and other "dead wood," and the extremely convenient arrangement of its most practical contents. Of the information afforded that most demanded for ready reference is to be found upon the inside covers or on the fly leaf; and the posological table of doses has been entirely rewritten and brought up to date, so that it is most thorough and complete.

Especially commendable is the Obstetrical Table in two colors, and the arrangement for the concise keeping of all accounts, credits, debits, profit and loss, etc. No physician can afford to be without this work.

GODEY'S MAGAZINE. Price, 10 cents; $1.00 per year. The Godey Company, New York.

The leading tale of the current number is a bright, vigorously told Thanksgiving Day story, "The Yielding of Hezekiah Craddock," by Laura S. Portor; "Aelfthryth" is a bit of old English romance by Thomas Swift; "The Triumph of the Poor Relation" is by Charles Edward Barns; "Off the Horn," by T. Jenkins Hains, is a tale of the South Arctic; "Pepe el Cubano" is a vivid sketch of the Mexican bull-fight by Andrew Mackenzie; "When the Prunes Came In" is by Tom Hall; "The Temptation of David," Mrs. Latta's serial, is concluded in this number. In addition to the fiction there are several important articles of general interest. Among these: "The Centennial of the American Navy" is by James M. Whiton; Rupert Hughes treats of "The Music of the Streets;" Nancy M. Waddle continues her flower talks with an article on "Poppies," beautifully illustrated. John R. Musick concludes his interesting series on the Hawaiian Islands and their people; Frances Drake furnishes an account of a recent horseback ride through the Indian country of the far West. The literary contributions are a critical review of the works of George du Maurier, and an article on the work of a new "Poet of the Civil War." The editor contributes a history of the origin and development of "Our National Thanksgiving Day."

THE LIVING AGE. Price, 20 cents; $6.00 per year. The Living Age Co., Boston.

This magazine has so long maintained a conspicuous position in the current literature of the day that it requires only to be known to be valued. At this season, when the reading public are deciding upon their subscriptions to periodical literature for the ensuing year, we feel it incumbent upon us to call especial attention to this weekly publication; there is no single work published which is so calculated to inform and entertain readers *with the spirit of the age*—critical, political, and literary.

The first instalment of a new novel, begun the first week of November, bears the title "With all Her Heart," and is a translation from the French, having been originally presented in the *Revue des deux Mondes;* it has aroused the greatest interest, attracting attention of litterateurs alike in France, England, and America. A vivid portrayal of life in a French industrial town, it is interesting alike as a social study and as a realistic, yet delicate, story of modern life. Its literary and ethical qualities are so unusual that the *Les Annales Litteraires et Politiques* described it as "an epoch-making story." The *Athenæum* (London) characterizes it as "a work of fine and searching analysis, full of charm, and redolent of a perfume which is exquisite and possesses no disquieting element."

To all *new subscribers* to *The Living Age* for 1898 will be sent *gratis* the *eight numbers* of 1897 containing the first instalments of "With all Her Heart."

THE CENTURY. Price, 35 cents; $4.00 per year. The Century Co., New York.

In the November issue V. C. Scott O'Connor writes of "Mrs. Cameron, Her Friends, and Her Photographs;" "A Great Naturalist" is by Henry Fairfield Osborn; "Strange Creatures of the Past," by William H. Ballou; "Gallops," by David Gray; "The Last Days of Louis XVI and Marie-Antoinette," by Anna L. Bicknell; "Good Americans" (1), by Mrs. Burton Harrison; "The Cherub Among the Gods," by Chester Bailey Fernald; "The Growth of Great Cities," by Roger S. Tracy; "Andrée's Flight into the Unknown," by Jonas Stadling; "The Story of Chitral," by Charles Lowe; "An Imperial Dream," by Sarah Y. Stevenson; "The Romance of a Mule-Car," by Frank R. Stockton; "An Interview with Sultan Abdul Hamid," by A. W. Terrell; "Mozart," by Edward Grieg; "On the Re-reading of Books," by John Burroughs; "Gilbert Stuart's Portraits of Women," by Charles Henry Hart. The poetry of the number is by George Edward Woodberry, James Whitcomb Riley, and L. Frank Tooker. There are the usual departments.

OUTING. Price, 25 cents; $3.00 per year. The Outing Company, New York.

The November issue is as bright and bracing as a November day, and appears again in a most handsome cover. The sport most prominently depicted is "Football," by Walter Camp. A. H. Godfrey writes of "The Round of Summer Horse Shows," and Hanson Hiss of "Fox-hunting on the Eastern Shore of Maryland." "Yachting on Northwestern Lakes" is by Walter S. Milnor. Other features are: "Lawn Tennis Honors of the Season," by J. Parmly Paret; "Turkey-hunting on the Wekiva, Florida," by L. L. Canova; "A Day Over Dogs," by Ed. W. Sandys; "Thanksgiving with the Steelheads," by M. S. Gibson; "From Genoa to the Bay of Biscay," by Paul E. Jenks; "Thanksgiving with the Jacks," by I. A. G.: "His Majesty the Moose," by Parker Syms; "Lullaby Mullen of Porphyry Gulch," by P. V. Mighels. There is the usual monthly record department, giving a digest of the affairs of the month in the world of sport.

DONAHOE'S MAGAZINE. Price, 25 cents; $2.00 per year. Donahoe Magazine Company, Boston.

Thomas P. McLoughlin, in the November number, draws some vivid pictures of daily life "In Darkest Chinatown;" in "Crumbs of Bread" Austin O'Malley gives utterance to many philosophic reflections; G. Lee considers the religious side of Don Quixote's character. Other papers of much interest are: William D. Kelly's tribute to the memory of Benjamin Joseph Webb, the veteran editor and publisher; "Loretta Order, Its Foundation and Progress," by Eleanor M. Parker; and Mary A. Desmond's reply to M. T. Elder's paper on "Rural Decadence." There are several short stories: the "Scarlet Glove" ends very happily; and a serial by Henry Austin Adams begins in this number. "Westchester" takes the reader back to colonial days. There are some excellent biographical sketches given in "People in Print."

SCRIBNER'S MAGAZINE. Price, 25 cents; $3.00 per year. Charles Scribner's Sons, New York.

The opening paper, the seventh on the "Conduct of Great Businesses," is by William Allen White, and deals with "The Business of a Wheat Farm." The instalment of Mr. Wyckoff's "Workers" tells of his experience as a "Farm-Hand" in Pennsylvania; "William B. Bigelow, the well known architect, writes "On the Country Church in America;" "No Continuing City" is by Blanche W. Howard; "Sainte Beuve," by George MacLean Harper; "The Durket Sperret," by Sarah Barnwell Elliott, is brought to a conclusion. There are two papers on "The Unusual Uses of Photography;" also a paper entitled "The Confessions of a College Professor." The poems are by Charles Edwin Markham, Rosamund M. Watson, Gertrude Hall, and Edith M. Thomas. There are the usual departments.

THE ATLANTIC MONTHLY. Price, 35 cents; $4.00 per year. Houghton, Mifflin & Co., Boston.

The November number is the first issue of its forty-first year. The opening contribution is a review of the new Life of Tennyson. Ira N. Hollis writes on "The Frigate Constitution;" E. L. Godkin of "Democratic Problems;" F. J. Stimson of "The Peculiarities of American Municipal Government;" John Fiske of "Forty Years of the Bacon-Shakespeare Folly;" "The Coming Literary Revival" is by J. S. Tunison. There is another instalment of F. Hopkinson Smith's dramatic story, "Caleb West." There are further instalments of Dean Swift's letters, edited by George B. Hill, and "Penelope's Progress," by Kate Douglas Wiggin; a short story by Madelene Y. Wynne, and poems by Helen G. Cone and William A. Dunn.

THE COSMOPOLITAN. Price, 10 cents; $1.00 per year. The Cosmopolitan Publishing Co., Irvington-on-the-Hudson.

The November is one of the best of the issues of the year. Julian Hawthorne writes of "Beauty and Charm in India;" Ellen P. Cunningham of "The Castle of the Thane of Cawdor;" "Some Cuban Photographic Sketches" are by Thomas R. Dawley, Jr.; "Mrs. Clyde" is by Julien Gordon; "Husband Number Seven," by Cleveland Moffet; "Some Curiosities of Farming," by John L. Heaton; "The War of the Worlds," by H. G. Wells; "A Glance at the Dark Arts," by F. W. Fitzpatrick; "Fame's Recognitions," by Samuel Freedman; "Recent Photographic Art" and a "Brief History of Our Late War with Spain" are anonymous. There is the usual poetry.

APPLETON'S POPULAR SCIENCE MONTHLY. Price, 50 cents; $5.00 per year. D. Appleton & Co., New York.

The November number opens with "Principles of Taxation" (XII), by David A. Wells; "Semon's Scientific Researches in Australia" is by E. P. Evans; "The British Association at Toronto," by Daniel S Martin; "The Racial Geography of Europe" (X), Germany, by William Z. Ripley; "Burs and B·ggar's-Ticks," by Spencer Trotter; "Expert Testimony in the Bering Sea Controversy," by T. C. Mendenhall; "Natural and Artificial Perfumes," by M. Jacques Passy; "Archæology and the Antiquity of Man," by Sir J. Evans; "An Experiment in Citizen Training," by Winifred Buck. There are the usual departments.

LIPPINCOTT'S MAGAZINE. Price, 25 cents; $3.00 per year. The J. B. Lippincott Co., Philadelphia.

The complete novel in the November issue is 'The Price of a Wife," by John Strange Winter. Other articles are: "Government by 'Gentlemen,'" by Fred Perry Powers; "The Day of Dialect," by T. C. De Leon; "Out of Meeting," by Thomas Wharton; "Banquets of the Olden Time," by Francis J. Ziegler; "A Brazilian Adventure," by William Thomson; "Oddities of a Famous Climate," by Frederick H. Dewey; "Vegetables," by Calvin Dill Wilson; "For His Own People," by Adeline Knapp; "On Small Courtesies," by Frances Courtenay Baylor; "Novelists as Costumers," by Eva A. Madden. The poetry is by Susie M. Best and Ella Higginson.

THE CANADIAN MAGAZINE. Price, 25 cents; $2.50 per year. Ontario Publishing Co., Toronto.

In the November issue J. G. Bourinot writes of "The Makers of the Dominion of Canada;" J. S. Willison of "The Premiers of Ontario Since Confederation;" Lee Wyndham of "The Finger of the Devil's Hand;" "The Fenian Raid of 1866" is by John A. Cooper; "Canadian and United States Rugby," by George W. Orton; "Hagar of the Pawnshop" (IV), by Fergus Hume; "The Pillars of the Old Meeting House" (V), by Ella S. Atkinson; "The Apotheosis of Paddy Larrisey," by G. M. Fairchild, Jr.; "Current Events Abroad," by A. H. U. Colquhoun. There are the usual poetry and departments.

ST. NICHOLAS. Price, 25 cents; $3.00 per year. The Century Co., New York.

In the November issue Frank R. Stockton writes of "The Buccaneers of Our Coast" (I–IV); W. S. Harwood of "The Story of a Pine Board;" "The Kitten and the Bear" is by Charles D. Rhodes; "A Funny Little School," by Ruth McEnery Stuart; "My Narrowest Escape," by George Kennan; "A Baby Elephant," by F. Fitz Roy Dixon; "Plants and Their Enemies," by Thomas H. Kearney, Jr; "With the Black Prince" (I), by William O. Stoddard; "Running the Fast Expresses," by George E. Walsh; "The Magic Sword" (Play), by Katharine Pyle. There are the usual departments.

Therapeutic Brevities.

Injection Treatment of Hernia.—The method of procedure is so simple that any one can, with ordinary care, do the operation without trouble. The objects gained are manifold, the principal of which are mentioned, viz.:

The patient's horror of an operation is overcome by the fact that no knife is used—he is not confined to his bed:

The comparative absence of danger to life:

The fact that one accomplishes the same result that is obtained by use of the knife, through complete obliteration of the canal, by virtually the same means, viz., local inflammation and deposit of plastic material:

The method of procedure is usually as follows: Remove the hair on the affected side and then carefully cleanse the part with soap and water, as for any other surgical operation. Now carefully insert the index finger into the canal, taking care to push back into the cavity the contents (if any) of the canal, then insert the hypodermatic needle directly into the canal and at right angles to it, beyond the tip of the finger, where it can be felt and the needle guided. This is the most important part of the whole proceeding, since if the fluid be thrown into the tissue surrounding the canal and not into it inflammation will result, but not in the canal where it is wanted. This is the greatest reason, to my mind, why this method has fallen into disuse, the inflammatory deposit not being in the right place. Having the needle in the canal where it can be felt by the finger, five to ten drops of the following fluid is gently forced in:

Zinc sulphate, 15 grains.
Alcohol, 2 drachms.
Carbolic acid, 30 grains.
Water, sufficient to make 1 ounce.

The finger is now withdrawn and the parts gently kneaded, same as after an ordinary injection. The patient will complain of some pain for a few days, but this is not usually severe.—Feid, in *Cincinnati Lancet-Clinic.*

Seasickness.—In regard to the pathology of the vomiting, some look upon it as gastric irritation due to the movements of the stomach on board ship, others as of cerebral origin due to reflex impressions from the eyes, or to disturbance of the circulation in the vomiting center in the medulla oblongata. In all probability these views are all correct, for seasickness is of mixed origin and not due to one cause only. I think there is very little doubt that if, reverting to the habits of infancy, one wears a tight bandage from the ensiform cartilage to below the umbilicus, it tends to prevent seasickness; at any rate, it certainly does make one more comfortable if the ship be rolling. The belt may be either of flannel or of linen, but the best is one of those long silk scarves called "kamarbands," or "cummerbunds," wound tightly round, so as to keep the stomach pretty firmly in place. There is another fact that tends to support the view that seasickness is of cerebral origin:

If the head is put flat down it tends to prevent seasickness to a great extent. One can also greatly lessen the tendency to seasickness by giving drugs which will quiet the medullary center. Sodium bromide is exceedingly useful for this purpose. I take in a little paper parcel about half a drachm, or a drachm, of sodium bromide, and when on board go to the steward and say, "I want a bottle of soda-water and a large tumbler." I throw in the bromide, shake it up, and drink it. This keeps one quiet and comfortable for a time at any rate. One need not be at all afraid of bromide, and its action can be kept up during a long voyage across the Atlantic; one can even push it so far that the patient becomes quite drowsy without doing any harm whatever. Another drug that seems to be very useful is chloral; it has a similar action to that of bromide in lessening the irritability of the vomiting center. There are many other drugs used in seasickness, but these, I think, are the most important. There is one point to be remembered about seasickness, and that is that there is often a good deal of bile in the stomach, and if this is cleared out the patient is eased considerably. This is done by simply giving the patient a large draught of hot water, which he vomits, and thus the bile is well cleared out; afterwards remedies can be given with some chance of success.—T. Lauder Brunton, in "Lectures on the Action of Medicines."

Chloroform Collapse.—Collapse from chloroform is due primarily to failure of the circulatory mechanism, respiration failing secondarily on account of anæmia of the bulbar centers. This is contrary to the conclusions of the Hyderabad Commission, but in all the tracings of the Commission a typical fall of arterial pressure is recorded, occurring before cessation of respiration. In the form of collapse which occurs during primary anæsthetization, and which comes on suddenly after preliminary struggling whilst the breath is held, the pulse ceases earlier than respira-

tion, and the heart is found to be in a state of paralytic dilatation. This condition may be remedied by artificial respiration, the thorax being rhythmically squeezed over the region of the heart, while the patient is placed in the horizontal position. If the pulse does not speedily return the animal is dropped into the vertical feet-down posture. By these means the heart, owing to the influence of gravity, is emptied into the splanchnic area, and the dilatation of the organ is relieved. Artificial respiration is maintained during this manœuvre. After a few seconds the animal is returned to the horizontal posture, and the heart is thus filled with a fresh supply of blood. When the pulse has returned and the heart-beat has become efficient, artificial respiration can be discontinued, and after a short space of time the natural breathing will usually return owing to the excitation of asphyxia, which also improves arterial pressure. In this form of collapse inversion is worse than useless, the paralytic dilatation of the heart being thereby increased. The second type of collapse occurs when chloroform is administered slowly and struggling is not provoked, and is apt to come on during prolonged anæsthetization. It is due to vasomotor paralysis and stagnation of blood in the splanchnic area, respiration fails from anæmia of the medulla, and finally the heart fails also. In such cases the collapse is relieved by inversion, but it is equally relieved by artificial respiration in the horizontal position, and as the anæsthetist can never be sure which type of collapse he has to deal with, the author considers that the vertical head-down position should never be employed.—*Quarterly Medical Journal.*

Uræmia.—After all that has been said of the danger of employing ether as an anæsthetic in cases in which there is some kidney trouble, it is interesting to note the experience of Lemoine and Gallois in the use of ether in uræmia. One of these gentlemen has employed it for nearly ten years, and has succeeded in stopping the most serious respiratory trouble due to uræmia. Both say that the ether treatment is quite likely to prove efficacious in uræmia due to acute nephritis, to acute renal congestion, to such congestion supervening in the course of sclerotic nephritis, or to infectious nephritis; the uræmia connected with the slow disorganization of the kidney by arterio-sclerosis, however, will not yield to ether. Every half hour or every hour, according to the case, they give two or three teaspoonfuls of ether in a little sweetened water, but think it best to replace the mouth dose occasionally, say every three hours, by a subcutaneous injection of two or three cubic centimeters of ether. The drug causes an abundant flow of urine, especially in favorable cases, strengthens the pulse, and calms the respiratory spasm. The authors regard the ether treatment on a par with that of blood-letting. —*Nord Médicale.*

Antitoxin in Diphtheria.—I have a high opinion of antitoxin as a preventive and curative agent in the treatment of diphtheria. My experience in private practise bears out fully the favorable reports made to the American Pædiatric Society by its special committee, and my clinical cases testify to the prompt and powerful action exerted on both the local and constitutional symptoms of the disease. I believe the antidiphtheritic serum should be administered freely and promptly, as the loss of twenty-four hours may mean the sacrifice of a life; and recommend doses of from 1000 to 2000 units, according to the severity of the case, to be repeated in twenty-four hours if improvement is not manifest. A third dose may be given with perfect safety. I would urge the use of the most concentrated strength of an absolutely reliable preparation. I have used diphtheria antitoxin of both foreign and domestic manufacture, but prefer that prepared by Parke, Davis & Co. for the reason that it is put up in hermetically sealed, large-necked glass bulbs, and can be obtained fresher, thus increasing its reliability.—Henry R. Slack, in *Atlanta Medical and Surgical Journal.*

Cod-liver Oil.—It is not at all surprising that ordinary emulsions of cod-liver oil are losing favor with the medical profession, when is considered the fact that almost every emulsion on the market depends entirely for its nutritive properties upon the proportion of cod-liver oil present, the remaining portion being made up of acacia, Irish moss, or other emulsifying and flavoring agents which add nothing to the therapeutic value of the product, but are, in fact, a burden to the weakened digestive organs of an invalid.

The great value of egg emulsions has been recognized for a long time, but the lack of permanence has heretofore proven an insuperable obstacle to their general use. Messrs. Parke, Davis & Co., however, have succeeded in securing a formula which enables them to prepare a stable emulsion containing forty per cent., by volume of pure cod-liver oil, emulsified only with fresh eggs,

and flavored with a fine quality of brandy. No acacia, no Irish moss, but cod-liver oil, eggs, and brandy; every ingredient therefore a nutrient. It justly deserves ethical recognition as the most meritorious preparation of this class now at the disposal of the profession.—*Pharmacal Notes.*

Quinine in Labor. — In simple lingering labor quinine awakens or accelerates uterine contractions. It stimulates uterine fibers when once they have begun to contract of their own accord. Unlike ergot, it does not set contractions going; hence it is not an abortifacient.

Quinine has one distinct advantage over ergot: The contractions which it sets going retain their normal intermittent character. It acts rapidly—within twenty-five minutes as a rule. Large doses are needed, and I give seven grains twice with an interval of ten minutes. These I give particularly when the membranes are ruptured, and it is advisable that the labor should be ended as soon as possible. It is harmless to mother and child alike, since, should it fail, dilators or forceps may be used, and there is no difficulty from the tonic contractions caused by ergot. One warning: As the placenta comes away when quinine has been used there is a slight tendency to internal hæmorrhage. Coules, as long ago as 1888, advocated quinine in abortion with retention of fœtal relics, and I have given it in three such cases with good results, the relics being quickly expelled.—SCHWAB, in *Revue de Obstetrique.*

Pneumonia.—In pneumonia I always begin treatment with one-half drachm of fluid extract ipecac every twenty minutes until there is free and copious emesis.—I prefer this to the ordinary custom of starting the secretions by calomel or saline. The ipecac accomplishes the following desired results: It unloads the always overabundant amount of bile that is in the stomach and duodenum, thereby relieving the nausea, and preventing the absorption of bile into the system: It relieves congestion of the lungs by equalizing the circulation, promotes expectoration, and lessens the diapedesis of blood into the air cells: It arouses the nervous system: It produces diaphoresis.

Ipecac is harmless and does not produce depression, as some may imagine. It can be used in the young and the aged with perfect safety. If used early it will put the patient in better condition, and in many instances abridge the attack considerably.—J. S. ANDERSON, in *Medical World.*

Silver Nitrate and Ergotin in Consumption. — Before the Section in Medicine of the Twelfth International Medical Congress, Crocq, of Brussels, maintained that tuberculous disease tended to end in recovery rather than in death, and that a fatal termination was due to an inflammation which led to a propagation of the tubercles. If this inflammation could be prevented or cured there would be more cases of recovery. According to him there is no remedy against the bacillus—creosote does not kill it, and there are some inconveniences about its employment, especially as regards the management of the stomach. He has employed with much success, even in cases that were grave and complicated with diabetes, ergotin and silver nitrate. The latter, he says, acts very beneficially on the stomach.—*New York Medical Journal.*

Ear Complications in Scarlatina.—Cleansing of the nares and nasopharynx may prevent extension of suppuration to the Eustachian tube with consequent otitis media and all its dangers. A good plan is to spray out the nostrils with a simple alkaline solution, and afterwards with an atomizer to spray the affected surfaces with:

Menthol, 20 grains.
Eucalyptol, 10 minims.
Paraffin fluid, to make 1 ounce.

These applications should be made every three or four hours if the discharge from the nose is abundant.—*Therapeutic Gazette.*

Prevention of Snake Bites.—Doctor Corislano d'Utra, of Brazil, says that persons suffering with snake bites may be cured in all cases by taking three doses, two hours apart, of thirty grains of calomel in an ounce of lemon juice. He further declares that whoever will carry about his person a bag containing from seventy-five to three hundred grains of corrosive sublimate need have no fear of serpents. They will flee from him, and if by chance he is bitten the bite will be harmless!—*Le Progrès Médical.*

[Most people will think twice before they take calomel in lemon juice.—ED.]

Extensive Burns.—

℞ Diiododithymol, 1 part.
Sterilized olive oil, 2 parts.
Vaselin, 8 parts.

Around the edges of the burns, after the ointment is spread, I dust the diiododithymol in powder form. In burns of small extent I

employ the powder form only. Cleanliness must be thorough whenever the dressing is changed. One of the great advantages of the foregoing is its freedom from poisonous effects. There is some smarting at first, but it soon passes off.—WALTON.

Santonin Poisoning.—Doctor Taylor has reported a fatal case of poisoning by santonin ("a little on the end of a teaspoon") in an infant eleven months old. The principal symptoms were great abdominal tenderness, especially in the right iliac region, pressure here producing convulsive movements of the extremities; respiration shallow and rapid; golden-yellow stools and urine, the latter first increased and then suppressed; profuse salivation; progressive rise of temperature and feebleness of pulse; jaundice; prolonged stupor.—*Medical Record.*

Eczema of Palm.—This as a rule is due to occupation causing habitual immersion of the hands in water. Salicylic acid in doses of ten to twenty grains to one-half ounce of ointment base will be found the remedy *par excellence.* The hands should never be washed with water, but when it is desired to remove the ointment it should be done by means of olive oil or liquid petrolatum. Salicylic acid plaster in strengths of five to ten or twenty per cent., as required, will overcome the objection to the use of ointment in this region. —*Philadelphia Polyclinic.*

Chronic Post-nasal Catarrh.—

℞ Camphor, 1 drachm.
Tannic acid, 1 drachm.
White sugar, 1 drachm.
High-dried Welsh snuff, 1 drachm.

Mix and employ a pinch once in the morning and evening, and once or twice during the day.

The snuff is to be discontinued if a fresh attack of nasal catarrh sets in, but should be resumed on the subsidence of inflammatory symptoms.—DOBELL.

Chronic Chlorosis.—The following is most serviceable:

℞ Tincture perchloride of iron, 10 to 20 minims.
Spirit sulphuric ether, 10 to 15 minims.
Tincture nux vomica, 10 minims.
Tincture quassia, 30 to 40 minims.
Water, to make 1½ ounces.

To be taken twice a day, an hour before luncheon and dinner.

—MALCOM MORRIS.

Creosote in Gastric Affections.—Creosote, although rarely employed in diseases of the digestive tract, save to check vomiting, is often serviceable in infantile gastro-enteritis and various dyspeptic conditions. I give the beech creosote, three drops, dissolved in fifteen minims of alcohol, to which is subsequently added 1500 grains of mucilage. For children use a teaspoonful, for adults a tablespoonful, immediately before each meal.—ZAUGGER, in *La Semaine Médicale.*

Synovitis.—The following application has been found most useful, but it must be applied as hot as possible upon layers of lint changed every hour and covered with oiled silk:

℞ Chloral, 1 ounce.
Carbolic acid, 1 drachm.
Water, to make 2 pints.

—*British Medical Journal.*

Prophylactic.—

℞ Salicylic acid, 1 drachm.
Chloral hydrate, 1 drachm.
Soda sulphite, 1 drachm.
Glycerin, 2½ drachms.
Alcohol, 1½ drachms.

Melt together by gentle heat until dissolved. When cold should form a jelly-like mass.

—SIR ALFRED PAGET.

Neuritis.—The painful nerve may with advantage be painted every hour with the following:

℞ Cocaine, 20 grains.
Menthol, 1 drachm.
Extract belladonna, 3 drachms.
Ether, to make 2 ounces.

—*The Practitioner.*

Fissure of Anus.—For the relief of painful anal fissure I prefer the following:

Extract of hemlock, 5 grains.
Castor oil, 15 grains.
Lanolin, 30 grains.

To be applied to the parts after each action of the bowels.

—ALLINGHAM.

Anæsthetic Tents.—Lefour soaks laminaria tents for eight days before use in:

Ether, 85 parts.
Iodoform, 10 parts.
Cocaine (pure), 5 parts.

—*The Practitioner.*

Medical Progress.

DISEASED AND UNWHOLESOME MEAT.—The following notes are written with the view of drawing the attention of general practitioners to the subject of meat in its relation to disease. I have drawn upon my personal experience whenever I have been able to do so, but lay no claim to originality in either matter or treatment. In the following table good meat is broadly distinguished from bad, but it must be understood that the goodness here is simply that of meat the healthy nutrition of which has not been impaired, while the badness is that of the exact converse. Beef is the flesh specially described, but the standard may be applied to other flesh with slight variations:

BEEF.

"Good" Meat.	*"Bad" Meat.*
COLOR.	
Bright red, "marbled" with fat.	Dusky red or pale, or both; brownish or discolored patches; or may be even greenish if putrefactive.
No hæmorrhagic spots.	Hæmorrhagic spots frequent.
FAT.	
Firm, whitish, with tinge of yellow. Not blood-stained.	Soft, unset, as a rule yellow, and often stained or studded with hæmorrhagic spots.
Containing no jelly or watery juice.	May contain jelly or watery juice.
SMELL.	
Fresh and not unpleasant.	Sickly, offensive, or of drugs.
TO TOUCH.	
Firm and elastic. Not wet or sticky. No pitting or crackling on pressure.	Soft, easily torn, wet or sticky. Pitting on pressure.
JUICE.	
Bright red in color; sweet and fresh to smell.	Dark in color, or very pale, with bad odor.
TASTE.	
Pleasant.	Absent, or unpleasant.

Horse-flesh is of a dark purple color, has a peculiar sickly odor, and is not "marbled" with fat; the muscular fibers are much coarser, and the fat a greasy yellow.

Calf-flesh is paler, and not so firm to the touch as beef-flesh.

The flesh of the pig is also paler and less firm, and the fat softer than that of the beast.

Good mutton is in color a duller red, is firm, and has a hard, white fat.

I shall now proceed to describe in detail some of the special causes of unwholesomeness in butchers' meat.

Tubercle is the most important and the most common of the diseases of animals, and is therefore considered first and separately. So common is it among animals the flesh of which come under the head of butchers' meat, that I should say quite seventy-five per cent. of all meat "seized" under the Public Health Acts is condemned on account of it. It is found most frequently in the lungs, pleura, lymphatic glands, liver, peritoneum, omental fat, and kidneys, in the order named. Seldom, if ever, is a case of tubercle found in which the lungs are not affected, but it has been estimated by McFadyean that only three per cent. of beasts suffering from tubercle have that disease affecting the udder. Oxen, swine and sheep suffer most frequently in the order named.

The disease usually shows itself in the form of nodules or caseous masses, varying in size from that of a pin's head to an orange, in the lungs, the liver, kidneys, and lymphatics; but the peritoneum and pleura are generally studded with hard nodules, giving rise to the terms "grapes" and "pearls" in use among farmers and butchers. The nodules or knots are by some called "kernels," but kernel is the name generally used by butchers for a lymphatic gland. Some caseous nodules are hard or calcareous, some softer and breaking down, and some are almost encapsuled and separated from the surrounding tissues. Calcareous particles are almost invariably present in the cheesy tubercle of cattle; among the latter also tubercle is much more prone to form hard calcareous masses than to break down.

The flesh of animals suffering from advanced tubercle is most frequently thin and wasted, and has very little fat; it is dark in color, sets badly, and is often wet or even dropsical in places; the nutritious quality has without doubt greatly deteriorated—putting aside the fact that it may contain tubercle bacilli or spores—and should therefore be condemned. On the other hand, I have seen, and not uncommonly, animals in good condition, fat and firm, and carrying plenty of flesh, that have had to be condemned after being slaughtered on account of generalized tuberculosis; and in one case—in a beautiful beast—the deep inguinal glands were found to contain small caseous nodules in addition to generalized tubercle in chest and abdomen. It was impossible to tell during life that these animals were suffering from tuberculosis. From this it is clear that animals may suffer from generalized tuberculosis, either in the nodular or caseous form, and yet grow fat, when there is no "breaking down" into pus; but when once the "breaking down" commences, then the condition of the animal begins to deteriorate.

Doctor Woodhead in his evidence before the Royal Commission on Tuberculosis declares the temperature in the center of a cooked joint of over six pounds in weight seldom reaches 60° C., and goes on to say "ordinary cooking, such as boiling, or more especially roasting, though quite sufficient to sterilize the surface and even the substance for a short distance from the surface of the joint, cannot be relied upon to sterilize tubercular material (and caseous matter) included in the center of rolls of meat, especially when these are more than three or four pounds in weight. The least reliable method of cooking for this purpose is roasting before the fire; next comes roasting in an oven, and then boiling."

Now, it comes to this, by way of illustration: Given a leg of mutton or a round of beef rather undercooked with a caseous gland embedded somewhat deeply in the same, what amount of risk of infection is run in eating the flesh? Again, what risk is run when a medical man orders a child or adult raw — or nearly raw — meat juice, and such material is derived from a tuberculous animal? I can only answer that there is a very appreciable risk, and that this has been proved by direct experiment on the lower animals. Kästner obtained positive results by the injection into animals of the juice of confiscated flesh of tuberculous animals; and Steinheil succeeded in transmitting tuberculosis to guinea-pigs by administering the expressed juice from flesh in which no tubercle could be seen.

That milk is a source of grave risk cannot be disputed.

The practical question, then, that we have to answer is this: Is there an actual risk of infection through the ingestion of uncooked or partially cooked flesh or milk of tuberculous animals? The answer is undoubtedly in the affirmative.

The Jews are much more exempt from tubercle than any other race, and there is little doubt that much of this exemption is due to the great care exercised in the choice and dressing of their meat. The following two facts are worthy of note: In Copenhagen slaughter-houses, in 1890 to 1893 inclusive, the percentage of tuberculous animals was 17.7 for oxen and cows, 15.3 for swine, 0.2 for calves, and 0.0003 for sheep; in the Berlin slaughter-houses in 1892–3 the percentage was 15.1 for oxen and cows, 1.55 for swine, 0.11 for calves, and 0.004 for sheep; in Edinburgh of 300 milch cows slaughtered in 1890 no less than forty per cent. (varying from twelve to eighty-three in one cowhouse or another) were found to be tubercular: In 1895 there were in England 7389 deaths from tabes mesenterica, of which 3855 were under the age of one year; 6746 from tubercular meningitis; 42,490 from phthisis; and 6084 from other forms of tubercle, making a total of 62,709. Without adding marasmus, bronchitis, diarrhœa, and pneumonia — some of which are undoubtedly tubercular — this is a tremendous total, almost the whole of which can be laid down to tubercle.

Having answered—as I am certainly justified in doing — the question respecting the actual risk of eating tuberculous meat and drinking tuberculous milk in the affirmative, what a grave responsibility rests with the public authorities in dealing with the traffic in diseased or possibly diseased animals! What new importance attaches to the due administration of the Dairies and Cowsheds Orders and to the question of the establishment of public abattoirs!

Bad meat may owe its unwholesome quality to a variety of causes, and may in various ways answer to the description set forth at the beginning of this article.

"Discolored" or "stained" flesh may be met with in any part or organ of the body, such as the heart, lymphatics, liver, muscles, pleura, peritoneum, etc., and is due to such diseases as advanced pleuro-pneumonia, septic, inflammatory (*e. g.*, parturient) fever, swine fever, erysipelas, etc. On cutting through a muscle of a recently killed — previously supposed to be healthy—animal, it is not uncommon to see it of various hues of red, from pale to dark, showing most distinctly that changes have already taken place in such muscle. Then, again, the heart and endocardium, or kidney, may be distinctly blood-stained to some depth into their tissue. This is positive evidence of the animal having suffered from a septic disease, such as swine fever.

"Unbled" (or only partially bled) meat, as I have already said, is of a dark-red color, sticky and soft to the touch, does not set well, and yields a thickish, sticky, and dark juice. This is the condition of things one would expect to find in animals that have died, or been drowned or suffocated.

"Unbled," "stained," or "discolored" meat, therefore, is all to be condemned, whether it is fat, lean, or fairly nourished; and why? Although such diseases as pleuro-pneumonia, septic, inflammatory, parturient, or swine fever may not be directly communicable to man, yet these fevers undoubtedly bring about such changes in the flesh as to render it a suitable medium for the growth of bacilli or the formation of ptomaines, and under such conditions this meat might be-

come highly poisonous in the short space of a few hours.

"Unbled" meat is often that of a diseased animal that has died before the butcher has had time to "finish it off;" in such a case it is possible the disease may be one readily communicable to man. But any "unbled" meat soon decomposes, and in addition is one of the best media for the growth of bacilli, either pathogenic or non-pathogenic. The peculiar, and frequently evil, odor of such flesh is best observed on a skewer that has been plunged deeply into its substance.

Pork, without any observable deleterious qualities, acts on many people almost like a poison. This may be due to the more rapid decomposition of pig-flesh, and hence the early formation of ptomaines, or the growth of a special pathogenic bacillus as described by Klein in the Welbeck Disease in 1880. It is therefore essential that pig flesh should be more carefully watched than any other kind of meat.

At Welbeck, in 1880, seventy-two persons were extremely ill, and four died, after eating some boiled ham. At Middleburgh, Holland, in 1887, 256 soldiers and thirty-six citizens were taken ill after eating meat from a cow killed whilst suffering from puerperal fever. Gärtner records a large number of cases of persons who were poisoned by eating the flesh of a cow that had suffered for two days from diarrhœa. The symptoms of ptomaine poisoning are well known; briefly they are: gastro-intestinal irritation, nausea, vomiting, pain in epigastrium, and diarrhœa, which may beal most choleraic, followed by collapse, and often death.

"Emaciated" meat, from whatever cause, either disease or old age, is innutritious, and therefore not of the "nature and quality demanded by the purchaser." Such meat should certainly be condemned, and it should be remembered by the public that there is always danger of poisoning in eating such meat, however well cooked or "seasoned" it may be.

The chief symptoms of swine fever (also called "hog cholera," "typhoid of swine," "purples," etc.) are diarrhœa and bronchopneumonia, with extravasation of blood on the skin, chiefly behind the ears, on the limbs, on the under surface of the abdomen, and some few on the back; after death these extravasations are found to extend down through the skin and subcutaneous tissue to the muscle. Extravasations are also found in the lymphatics (lumbar chiefly), heart, and kidneys, and also sometimes in the muscles. As the case advances the bowels ulcerate. Up to the present time swine fever has not been known to affect human beings, and so in the very early stages it is advocated that the meat should be passed as fit for food. The flesh of pigs that have suffered for some time is pale, wet, flaccid, and has a peculiar odor. This must unquestionably be condemned. In the more advanced cases the blood often undergoes a change in color, to a darker tint, and may become almost "tarry." This would naturally give the meat a darker, or even a purple, hue. Owing to the compulsory notification of swine fever to the Board of Agriculture, most of the carcasses of swine-fever pigs are confiscated, but in spite of all precautions many find their way into the "slink" markets, and thence in all probability into the sausage machine.

It would be as well, perhaps, before leaving this subject, just to mention that the superficial burning of pig's skin by lime in cattle trucks, and the so-called "diamonds," must not be mistaken for the extravasation of swine fever. Careful examination by the professional eye will distinguish the burn in its early stages, and in the case of "diamonds" the history—of very sudden and general appearance—of the comparatively good health of the animal, and the character of the patches, of varying color and for the most part diamond-shaped, will generally be sufficient evidence on which to form a diagnosis. Of the exact nature of the disease "diamonds" very little is known (except that it is due to a blood change), and the flesh must be judged on its merits.

Parasitic diseases also must be considered.

Liver fluke (*Distoma hepaticum*), commonly known as "rot in sheep," is shaped like a fluke fish, from whence, no doubt, it gets its name, and measures from one to one and a half inches in length, about half its length in breadth, and from one-sixteenth to one-eighth inch in thickness. It inhabits the bile-ducts, is commonest in sheep, but is also found in oxen. It causes blocking in the bile-ducts, destruction of the liver substance, and wasting of the liver, diarrhœa, jaundice, falling off of the hair, and general dropsy and emaciation. The flesh has to be judged on its merits, but the liver must most certainly be condemned. The Scotch shepherds eat flukey liver and say it does them no harm; unfortunately, there are not enough necropsies of these brave shepherds to confirm or refute their statements.

Measles in pork (*Tænia solium*) is due to the cysticercus cellulosæ being disseminated in the liver, muscles, connective tissue, brain, etc., but not in the fat. The cysts are on an average the size of a pea, and are noticeable during life beneath and on the sides of

the tongue. Hooklets can be obtained from the cysts; and some cysts may have undergone calcareous degeneration. All measly meat must be condemned, as this cysticercus is one of the two phases in the life of the *tænia solium*, which latter is developed from it in man.

Trichina spiralis is a nematode that affects the muscles of pigs and other animals in the form of an ovoid cyst just visible to the naked eye. Its demonstration is made easier if a small portion of the muscle is first treated with liquor potassi, for the cyst then becomes more distinct, and the worm more easily seen with a magnifying glass. The miniature worm is coiled up in the cyst and is about one-thirtieth inch long. This disease is transmissible to man, and all meat affected by it must be condemned.

Strongylus filaria is a nematode found in the lungs of sheep and lambs, but is not a common affection in England. It is a slender worm, reddish-brown in color, and about an inch long. It causes during life much bronchial irritation and a husky cough. The lungs (post mortem) show numerous small nodules throughout their substance, yellow in color, about the size of a pin's head—some hard and almost calcareous, others softer, and others again surrounded by a small quantity of thin pus. The worm is easily demonstrated under the microscope after squeezing one of these nodules on a cover-glass. This parasite is not known to affect any other organ than the lungs, and has not been found in man, so that the lungs must be condemned and the meat judged on its merits. The lungs of a sheep, recently seized and condemned by the Health Department in Nottingham, on account of extreme malnutrition, were found to be thickly studded in all parts with this nematode.

Anthrax and actinomycosis are the only two other diseases I shall mention.

Malignant pustule, splenic apoplexy, or splenic fever was the cause of thirteen deaths of human beings in England during 1895—eleven males between the ages of ten and sixty-five, and two females between the ages of fifteen and forty-five. This disease is uncommon, but at the same time rapidly fatal in all animals. The chief signs are: enlargement and congestion of the liver, spleen, kidneys, and lymphatics; the spleen is especially large, soft, and dark. Extravasations of blood are not infrequent.

The bacillus of anthrax being pathogenic, and the spores very hard to destroy, it is absolutely essential that the flesh of animals suffering from this disease should be destroyed by fire.

Ray-fungus, or actinomycosis, although not very common in England, is found in Norfolk and other parts; it is also known by the names of "wooden tongue," "lumpy jaw," and chiefly affects oxen. It is generally found about the head and neck of the animal, and in most cases one side of the tongue and one ramus of the jaw are affected,—hence its name. This fungus is pathogenic, and the spores are very resistant to heat, requiring, according to Wurtz, fourteen minutes' boiling to destroy safely.

There is no separate return of deaths from this disease by the Registrar-General, but I am of the opinion that it is of much more frequent occurrence than is generally supposed. It is desirable that every medical man should examine carefully the pus of any abscess (he cannot otherwise explain) for granules about the size of a millet seed and of a canary color—those of the ray-fungus.

In conclusion, I can only hope that these imperfect notes may interest some few who are interested in the subject, but have not much time to devote to its study; and I have to thank Doctor Boobbyer, of Nottingham, for the many facilities given me for inspecting condemned meat in that town.—T. Robinson, in *The Quarterly Medical Journal.*

Cancer Mortality Abroad.—The statistics bearing on the increasing mortality from cancer in Great Britain have excited a certain curiosity abroad as to the existence of a similar tendency in other countries. Unfortunately no sufficient data are available in most European States for the compilation of similar statistics, but it appears that in Paris, at any rate, the proportional mortality from cancerous diseases is even greater than in England. During the year 1894—the most recent return that the dilatory methods of foreign statisticians have placed at our disposal in a complete form—out of 51,653 deaths no less than 2698 were ascribed to cancer, so that, roughly speaking, one of every twenty deaths in Paris is due to this cause as compared with one in twenty-three in Great Britain. More recent statistics confirm this proportion, but unfortunately no similar comparison is possible in respect of the mortality for France as a whole.—*Medical Press and Circular.*

Optic Atrophy Following Sexual Excess.—Spalding relates four cases of optic atrophy following sexual excess. Treatment was ineffectual, and all gradually lost useful vision, though they did not become totally blind.—*Cincinnati Lancet-Clinic.*

The Medical Age.

VOL. XV. DETROIT, NOVEMBER 26th, 1897. No. 22.

Original Articles.

PLEASURE AND PAIN AND CONSCIOUSNESS.

BY H. GASSER, M.D.

As physicians we are interested in the continuity we call life, with its physiological processes special and general, with the influences that increase and retard its growth and development. Life, with consciousness as an expression of its highest form, is maintained by good actions and reactions, the statement of which admits the forces that produce it. Beneficial actions cause agreeable feelings; injurious ones, disagreeable feelings.

Of all the intricate and complex phenomena of life, those of pleasure and pain are the most involved and obscure; and this, it seems to me, is due to the fact that we have no unit of measure.

Many have been laboring to discover special nerves of pain, but the efforts will almost certainly be fruitless, because they are in contra-indication to well-established principles. How, for instance, can we account for the growth and development of nerves of pain in the theory of evolution? It is entirely at variance with the science of biology, and has nothing in common with the established laws and principles of heredity. The conditions that cause pain, especially of a definite kind, are not constantly repeated, and the tendency to fade out even as a memory is the rule.

A living organism is composed, says Spencer, of "a mutually dependent set of organs, having a *consensus* of functions; the very existence of a special organ having its special function implies that the absence of its function must cause disturbance of the *consensus* —implies, therefore, that maintenance of the *consensus* goes along with a medium degree of its function."

That all functions of the organism are adjusted and regulated by the nervous system, even to a much greater extent than by the circulatory system, and that they must act constantly and continuously, thereby creating a circulation of forces or "molecular pulses" in the nervous system, is a conclusion in the belief of which I think we are warranted, for it is not only in harmony with physiological investigation, but in many instances demonstrated by experimentation.

The circulation of forces or "molecular pulses" regularly and systematically in the nervous system is a conception of such self-evident and self-demonstrative character, the result of our knowledge of physics, physiology, biology, and heredity, and our daily experiences during every moment of conscious existence, that a contrary conception cannot well be intelligently conceived.

The circulating energy in the nervous system is of such an elastic and attenuated composition that we do not readily comprehend it, because we measure things by our gross material existence. This is why it appears almost like a new departure in the interpretation of biological and psychological phenomena. This was equally true of our first notion of gases. It took the world a long time to get accustomed to them—indeed, not until long after the death of the pious, humane, and scientific Priestly, who during life was vilified and blasphemed all over the world for his discoveries.

As the food we eat and the air we breathe keep up an average state of the blood and nourishment of the body, so "the external world," says Luys, "with all its incitements, enters into us by the channel of the senses, and the same external world, modified and refracted by its ultimate contact with the living tissues it has traversed, merges from the organism and is reflected outwards in the various manifestations of voluntary motor

power." Every tissue is in continuous and unfailing adjustment with all the rest, and by the system of nerves is carried to the central ganglia, and again to the periphery, that ease, continuity and uniformity may be established into a physiological state of healthy well-being, and expressed as states of consciousness, the result of all internal bodily processes. Every cell in the body contributes its share to the complex feeling we call life. This is why the living organism is the sum of all the elements that constitute it, even, says Th. Ribot, "the desires, feelings, that impart to character its fundamental tone, have their roots in the organism, and are predetermined by it; the same applies to even the highest intellectual manifestations."

As no two persons are constructed anatomically and histologically exactly alike, and acted upon by the forces of the outer world in the same way, there must be a special or individual expression of the energy in each, a result of the constructive forces of which they exist, and which give to each his individual characteristics. Built like John L. Sullivan, there is an expression of the circulating energy peculiar to his characteristic anatomical construction. This is equally true of dwarfs and idiots. The extraordinary sensibilities of men like Goethe and Ruskin, Burns and Byron, gave them their distinct individuality. Our anatomy, with its multiplicity of functions of ever-varying unity, floating in the endless and constantly changing stream of heredity and environment, is a "prodigiously tangled and inextricable maze."

We say an act is good that produces pleasure and happiness, and bad when it gives pain—unhappiness. It is the acknowledged standard of measure of impressions. Those indifferent states of feeling when the organism is in harmonious equilibrium are difficult of analysis; they are the nebulous, embryotic units of feeling in consciousness, without shape or form. A complete equilibrium is an impossible state of being during conscious existence. There is always some special locality that sinks below or rises above it, thereby causing variations of relations of feelings that admit all possible degrees, and the extremes of which we call pleasure and pain—of which there are all the varying quantities and shades, from the greatest happiness and joy, to anxiety, restlessness, and acute pain, and all dependent upon the condition of the organism at the time. Every organic change perverts the feeling, local and general, and so modifies the personality, or consciousness, which is but an expression of the organic state.

The brain is the machinery, the highest representative of the complex and multiform perturbations of the circulating nervous energy of the organism that gives rise to conscious activities, but only a small part of the whole; the unconscious automatic states of the circulation of the nervous system is a condition of vastly greater importance than any idea or thought whatsoever, for it reigns sovereign in its operations. There may be, to illustrate, the most frightful death-anguish without any knowledge of it. Then, again, we may be possessed of realities of existence conscious as any in real experience, but our intelligence tells us they are only dreams. The delusions acquired by the insane, by constant repetition become organized in the brain, and after recovery are as firmly established a part of the general mentality as any fact in conscious experience, although no longer controlling and subordinating the whole. In the alcoholic trauma of the brain-cells causing delirium tremens sleep is banished, painful thoughts chase one another, and the terrible dread and indescribable misery are suggestive of the Hades of Dante as painted by Doré. These intense, riotous, and bewildering delusions and hallucinations remain as facts, as scars in the substance of the brain after recovery. In the infectious diseases wherein "the struggle of two organisms, the one invading the other," is the cause, there is always a change of feeling, in which we may have every shade and expression of pain. It is the sum of all the automatic circulating energy of the organism carried to, assimilated and adjusted by the brain that constitutes common feeling and sensation, of which pleasure and pain are forms that act as regulators and interpreters of their relations.

If we keep in view the idea that in the circulating energy of the nervous system there is a given tension, resistance, and rapidity, with storage of energy and ex-

haustion of forces, we can readily form a conception, comprehensive in application, of the meaning and importance of those states of feeling we call pleasure and pain; that all those manifestations of the life of the organism, or the social life, that deviate from that harmonious equilibrium that cause ease, pleasure, and continuity, result in disease, pain, and discontinuity—the forces of dissolution.

Those ill-defined feelings, restlessness, anxiety and sadness are mild forms of pain that are distinguished from bodily pain only by the site of development. We call these "physical pains," but only, as Kirchhoff says in his admirable "Handbook of Insanity," because they are "the result of nutritive disturbances, or grosser changes in the brain, and do not disappear until these causes are removed. So long as these exist they occupy the foreground of consciousness and repress all other feelings and ideas." It is the collective inner and central experience of the forces circulating in the nervous system, and adjusted or equilibrated in the brain, that we call "mind"—the sum of our thoughts, feelings, and sensations. As these forces change every moment of time, and are never twice exactly alike, so the states of "mind" vary. Every changed and painful state of vital feeling means a pathological condition; conversely, every pathological condition means a painful state of feeling. Every physician must have grasped this simple truth.

If the hypothesis of the circulating energy of the nervous system is accepted, we are at once forced to the conclusion that the automatic, subconscious activities make up the great stream of continuity. This we find to be in harmony with our daily experiences. We may, for instance, be absorbed in the thoughts that overpower all other feelings, and concentrate consciousness until it is single and alone; we may lose it in a fit, or have it fade down into the general stream in sleep, yet the subconscious automatic activities struggle on for existence in continuity, regularly and systematically, every moment of time in the organism, and are as the ocean of vital activity, out of the eddying stream of which the basis of all conscious life is possible. The circulating energy is not consciousness, but the streams of varying tension, rapidity, and wave-lengths, as they mount into the cortical cells for adjustment, bring about states of consciousness, the most interesting as well as the highest and most complex development in the physiological division of labor—"facts of the first magnitude"—that are in reality but links in the endless circuit of life. They rise as waves of special height and strength in the stream of the life of the organism, of which the brain is the inhibiting and equilibrating center, of which complete equilibrium, or absolute relativity of function — impossible states of existence—is the unit. Hence, states of feeling or consciousness must be forever swinging between pleasure and pain.

Every thought is accompanied by a certain mood or state of feeling that may be indifferent, happy, or painful, in innumerable gradations and shades, and which influences self-consciousness, as when the words, suggestive of certain dislikes, we tear to tatters between the teeth. In the cheerful mood of alcoholic intoxication, and of mania dependent on congestion and disturbed chemical changes in the cortex of the brain, we find the organic basis that influences for the time the general conduct. The moods of resignation, doubt and despair are states of painful consciousness, the subjective expression of the energy of the nervous system. This, again, implies that we must have a certain state of activity, resistance, and tension to cause these states of feelings. This does not reveal to us what consciousness is, but only states the condition necessary for its appearance. Consciousness is the reaction, "lives but for a moment," and has nothing in common with its antecedents.

The circulating molecular energy in the cortex of the brain is the same as that in nerves of transmission, only the reaction is different. When the energy passes into the cortical cells, instead of having a sensory or motor impulse, there is an augmentation or inhibition; there being no insulated lines of transmission, the reaction is greater, with increased resistance and time, and this adjustment of the various functions gives rise to those relative activities in time and place that we call states of feeling, or consciousness. "The complex sensory impulses which give rise, for instance, to sight and touch re-

spectively may differ only in the wave-length, so to speak, of their constituent simple impulses, much in the same way as red light differs from blue light" (Foster). The thoughts and feelings, in common with sight and touch, are manifestations of motor power dependent on the whole organism, like those of the hands and feet, although more involved and complex. They are all parts of the one system with all its variations, differing principally in the power of transmission, resistance, and endurance through organization.

When we have immediate injury to a part, the local cell-life is deranged and changed physically, and hence, physiologically, the local function is no longer in harmony with the general life. The forces or molecular motions transmitted in a certain definite harmony no longer act with the same ease; it is out of tune, restricted and individualized, and this local change of function is transmitted to the brain, where a central change, out of harmony with the rest of the functions of the organism, creates that disturbance we call pain. This disturbance may be so powerful that it overwhelms the power of resistance in the plastic cortical cells of the brain; they cannot adjust the activities, causing a rupture of the equilibrium with diffusion of the forces, which is unconsciousness; but the unconscious better organized functions continue—scotched, possibly, but not slain.

While the seat of pain is seemingly in the local injury as an entity, a something inherent and distinct, yet every analysis leads us to the conclusion that it is a state of feeling relative to our own organism, and is dependent on the entire nervous system of which all the internal processes in their entirety are the constituent elements. The local change of function is not painful until, by adjustment of all the functions of the organism in the brain, it becomes a mental state, that rises into the field of consciousness. Pain is the name for the consciousness of the local change of function. There is a disturbance of that equilibrium in the cortical brain-cells induced by custom and organization that we call in general the state of feeling. When it has to adjust the local injury, there is at once a disturbance of all relations, the whole organism is influenced and readjusted to it, and so drawing upon the stored-up vitality and power of resistance of all the cortical cells, by coming to the rescue with their own forces, is caused the disturbance we call shock, that may be of every shade and degree, and dependent on the power to resist or assimilate the injury by the stored-up vitality. Indeed, this painful expression of a pathological condition could not exist without this organized power of adjustment and discrimination in the brain of all the functions of the organism.

Examples of irregular and unusual sensations often yield the rarest kind of instruction. The pain, for instance, in the fingers of an amputated upper extremity is a fact in consciousness. We know the pain is not in the fingers of the amputated, dead, and buried limb. There is no pain in the brain, and yet consciousness tells us there is severe and continuous pain in the fingers that causes great bodily suffering. It is more than a "memory" of the conscious experience of the pain at the time of injury one month ago. It is a fact in the present state of conscious experience, an abnormal feeling that rises above the field of average healthy consciousness, an inharmonious reaction with the rest of the organism. This continuance of the painful experience can only be interpreted on the principle that the nerves supplying the fingers were injured up to or above the line of amputation, and there is a continuance of the peripheral change of function, making the circuit of activities in the brain that cause adjustment in consciousness complete. Then, again, any peripheral irritation of the nerve-stumps of the fingers would readily set in motion the yet irritable local cortical cells injured by the shock of the original injury. That the cortical cells of the brain, that receive the shock of severe local injury, may also be injured by it, equally as well as by physical shock received by the sense of sight or hearing, is a belief founded in experience. The difference is one only of methods.

Gradually the healing power of time, by the restoration of normal function, causes the painful sensations to fade out and then remains only as a memory. The stored-up memory in the brain is not pain, neither is it a mental state; it is only capable of being put into a mental state by relation of associated experiences.

The psychical shock caused by the sudden and violent loss of loved relations produces an irritable and often injured condition of the plastic cortical cells that for the time almost completely controls conscious existence. The intellectual activity is permeated by the all-absorbing idea. It is a wave so high in the adjustment of the whole that it takes some time for it to subside, only to recur again in ever-decreasing intensity. Occasionally it never does so, and causes insanity or other nervous disease, and may even cause death as instantaneously as by lightning.

The thought of ruin and distress with loss of honor, by the president of a bankrupt bank, is so painful that in many instances death is a relief to be wished for. The psychic shock of the sensations of drowning make a strong and lasting impression on the cortical cells that during the active conscious life of the day is controlled, but it rises above the surface of the common unconscious feeling during sleep, when the sensations are all repeated with almost the full vigor and constitutional shock of the original painful experience.

The cells along the tracks of these sensations are irritable and injured; they cannot retain the energy stored up during rest by sleep, and discharge it along these lines of least resistance, and so revive and renew the real experience. The psychical trauma caused nutritive disturbances in the cortical substance of the brain which, when healed and restored, may be recalled as a memory.

Probably none of us are so well put together physiologically as never to have suffered from dreams accompanied with pain, terror, and distress, especially during youth, the result of excesses and indiscretions of all kinds, physical and moral; and what else were they but a "mental" interpretation of the organic state, involuntary, and at times wholly unconscious, with a crude coherence that conscious analysis soon demonstrates as a fact in experience, without any foundation in reality outside of our own disordered functions, in the depths of which its roots are planted.

The practise of medicine is founded upon such interpretations. Our physical is that of our conscious virility, by which we measure in terms of pleasure and pain the happy memories of the past, the joys and sorrows of the present, and the hopes and griefs of the future, by association and relation of experiences.

That pain is not an entity, a something inherent and distinct in the organism, is evidenced by every analysis. We find it to be a relative sensation, a form of feeling that comes into consciousness as a constituent in the equilibration of the nervous energy. As pleasure and pain must be found in consciousness as states of feeling relative to the organism, and as feeling is only a name for the consciousness of the changes that are either pleasurable or painful with their intermediate states, it must be evident that they are all but names, classifying terms of the one general function, descriptions simply of the local manifestations of the internal processes in their entirety of the circulating energy of the nervous system.

That consciousness, of which pleasure and pain with their intermediate states are expressions, is developed in the cortex of the brain is one of the best established observations. While it is true, as Dr. C. L. Dana says, "there is no pain-center in the cortex of the brain," it is true only because there is also no center of consciousness in it. This interpretation is, no doubt, a departure from the generally accepted psychological interpretation. It is a common belief, and in a limited sense partially true, that "sensations carefully defined and understood, and rigidly separated, will probably be found to be conscious units which are localized in different parts of the cortical area, . . . that is, that condition in which consciousness is aroused by the simplest form of stimulus. If, for example, the end of the finger is touched by some object, we get a simple sensation of contact, which is the simplest possible conscious unit in connection with the subject." That this conclusion is untenable and contradictory must be evident, if the facts here presented and the theory advanced have any value as a working hypothesis. A very brief analysis, with what has already been said, it seems to me, will clearly indicate that we know local states of feeling or "conscious units" only by comparison with all the rest—that is, the meas-

ure of their quality and intensity. A touch may mean one thing to a certain person and an entirely different thing to another, because in each it is in relation with the whole of the previous experiences registered in the substance of the brain as memories. As these experiences and memories vary in kind and in amount, so that each person has his own characteristic individuality, the interpretation in consciousness of no two is exactly alike of even a simple touch. The touch of the fingers at the bottom of the abdomen to a layman is an entirely different thing in the consciousness of an accomplished surgeon. The sight of the ignorant person standing by the seashore or at the foot of a glacier is an entirely changed state of conscious feeling from that of a scientific geologist; how much more involved and complicated the latter's conceptions, showing how the simplest touch is in relation with the whole. The previous experiences certainly play a most important part even in the interpretation of the simplest sensation, and clearly indicate that "local units of consciousness" are inconceivable states of existence.

The forces in their varying wave-lengths, transmitted by the organs of the special senses that are expressed in states of consciousness as relative tensions of strength, rapidity, and vividness, have been recognized from the earliest antiquity to the present time as the "temperaments" that are expressive of the organic constitution. These relative tensions of activity imply there are nervous arcs of the function of the organism localized in the cortex, the cells of which have a special adaptation in organization to assimilate functions of a definite kind, and are known as motor areas. In them there is not that organized habit of transit lines of motion that we find in the better established functions of life, the injury of which causes prolonged and often permanent loss of function. Indeed, a cortical motor area may be removed, causing temporary disturbance of sensation and motion, but the better organized portion of the arc may soon establish relations with other cortical cells and ultimately reestablish relations with the former cortical cells and thus reestablish function.

By shaving off the cortical area in the brain we produce an unconscious automaton, without feeling of pleasure and pain. We have cut away that which measures or equilibrates the multitudinous activities of the organism in time and place. The cortex itself does not give rise to pain, it only measures the relativity of the functions into constant states that we call pleasure and pain. Even when the cortical cells are diseased and cause central pain, or "psychical pain," distinguished from bodily pain only by the site of development, the cortex is not the pain. The forces or functions of the rest of the organism are no longer adjusted and equilibrated in the diseased cells in the usual or normal way, and the reaction is the changed and painful state of feeling. When the cortical area is shaved away we may have manifestations of every variety of sensations, like taste, vision, and hearing, with purposive and coordinate movements, but not the slightest evidence of the consciousness of their existence. These are the better organized, unconscious activities that play so important a part in the development and influence of the states of consciousness in the cortex.

The cortical area is the highest and most complex center for the adjustment of the various functions, a central organ where are organized those activities with all their variations we call vital being into an inextricable unity, the expression of the organic connection of living and feeling, of which the intellectual activity is but a link in the circuit, and is as definite and legitimate a physiological process as that of the heart, lungs, or liver; for in the one, as in the other, there is a burning away of its own constituents, and rebuilding by the absorption of raw material. Every expression of vital activity, from the most profound, coherent, and logical deduction, to the simplest automatic act, is connected with the production of heat and waste products of combustion.

It is the inner and central collection of all these forces in their adjustment that we call "mind;" the sum of our sensations, thoughts, and feelings, all the product of the brain at the time of its activity, and that is as varying as the changes of the organism and the forces of the environment it assimilates. As the forces change every moment of time, and are never exactly alike, so the states of mind or reaction of brain on them is different.

This is why we never have absolute equilibrium or a unit of feeling in consciousness, but are forever swinging, often simultaneously, between pleasure and pain, and all their intermediate and mixed states.

It is the description and analysis by "metaphysicians," and some psychologists, of these ever-changing states of feeling that has caused to be built up such a bewildering, self-contradictory, and conglomerate nomenclature, that has kicked up such an intellectual dust that the ordinary student has been appalled and overwhelmed; while he could get a glimpse occasionally of the clear light, yet he was in hopeless chaos.

The theory of the circulating energy of the nervous system is of great practical importance, to the practising physician at least; indeed, unconsciously it is utilized by him in the practise of his profession. He cannot form a clear conception of the physical condition of his patients until he grasps the fact of the relation of the pathological condition with the rest of the functions as given in consciousness. In those diseased states, when conscious feeling is no longer capable of interpreting relations, the unconscious actions always portend gross pathological conditions with deep-seated change of function that arrest our attention and cause alarm. It is on this general principle we state the conclusion that the patient is "insane all over," or sick all over, because every local disturbance causes changes in the entire system.

This hypothesis is also interesting in its wider application, in that it is in harmony with the ebb and flow, the periods of activity and rest of the whole, and that consciousness, as we know it in experience, is like its circulation, intermittent, of varying degrees of intensity in the same individual at different times; that it is connected with the tensity of the circulating nervous activities as they mount into the cortical cells of the brain, where their measure is adjusted; that they may be spurred up or inhibited into equilibrium, as when the gnawing pain of hunger knocks at the door and arouses an acute and intense consciousness that will not down until appeased. The same is true in the pursuit of ideas, for you disturb the equilibrium until it goads you on and on, and in many instances becomes so severe that "renown is a source of toils and sorrow; obscurity is a source of happiness."

Genius means an excessive sensibility to impressions from without, with a continuous disturbance of relations within. The "molecular pulses" circulate unassimilated, undigested among the forces within, and will not rest until they approach a symmetrical equilibrium.

Our experiences, physical and moral, are such only because they are registered and so perpetuated in the substance of the brain as stored-up memories that may be recalled. "This is why the satisfaction of enjoyments means the endurance of their loss. We judge the loss and ruin, as we do the hopes and joys, by the same automatic, intellectual process." It is the foundation of our conduct, in common with all other functions of life. As it is more pleasurable to the individual to have physical and mental equilibrium with his surroundings, thereby creating comfortable thinking and feeling, it causes him to reflect upon the choice of things or persons that have affected his sensorium, and thereby acknowledges the forces of discernment in the brain as a purely physiological synthesis of his nervous sensibilities, "executed by the organism at its own expense, and resulting from the harmonic consensus of all its parts."

Platteville, Wisconsin.

ACCIDENTAL HÆMORRHAGE.

BY FREDERICK E. BEAL, M.D.

It is not my purpose to apologize for reporting this case. Indeed, I think it is a duty to report unusual and rare cases.

Accidental hæmorrhage or loosening of the placenta, according to Parvin, is not a common event, as he shows only 105 cases are reported up to 1870. Brodhead, however, in a most excellent article in the *Medical Record* for February, 1897, claims it is by no means as rare as many suppose, and the "general practitioner is sure to meet with it." I am inclined to the opinion of the latter, and think many cases go unrecorded, and perhaps some sudden and unexplained deaths during labor could have been traced to this cause if it had been recognized.

The ætiology of accidental hæmorrhage is given as predisposing or exciting; among the former are many of the acute fevers and all chronic diseases tending to debilitate the mother or fœtus, chronic nephritis being specially mentioned. The exciting causes include overvigorous uterine contractions, injury to the mother in any form, or shortness of the cord.

In diagnosis we are instructed to differentiate between this and placenta prævia and rupture of the uterus.

The prognosis as to the mother depends mainly on the area of the placenta that is detached and the consequent amount of hæmorrhage and the rapidity with which it happens. In the severe forms, according to Storer in the above mentioned article by Brodhead, the mortality is $46\frac{7}{10}$ per cent.—practically one-half.

On March 2d, 1897, I was called to the following case: Mrs. ——, primipara, aged twenty-seven, married one year and a half; family history absolutely good; present health perfect; weight at time of marriage 108 pounds; present weight 160 pounds; small frame; urine analysis negative; in the best of spirits; nine months pregnant. Examination at 9 A.M.: Child in normal position, movements vigorous; fœtal heart between 130 and 135, made out with difficulty owing to the obesity of the patient; the os beginning to soften; pains rather infrequent, though normal for this stage of labor. Everything progressed nicely, though very slowly, and at 2 P.M. os was more than half dilated, vortex was beginning to settle into brim, and I could then make out that the head was very large; pains normal, though harder perhaps than usual at this stage. Shortly after two o'clock she suddenly complained of severe and cutting pains in the upper left segment of the uterus and screamed out that something was tearing there. Palpation within a few minutes disclosed a bulging of the womb at that part where pain was felt, and at the same time she said that she was flowing severely. Examination corroborated her statement, and I found a considerable amount of bright red blood flowing out of the vagina. Pain became rapidly more severe and the bulging more prominent. Uterine contractions became imperceptible, or were marked by the constant tensity of the entire uterine walls and the terrific pain at the upper part of the womb. The patient became rapidly weak, pulse rapid and thread-like, pupils dilated, skin cold and clammy, mucous surfaces very pale, and, feebly calling for more air, she rapidly went into a state of semi-unconsciousness—in short, a perfect picture of collapse.

I recognized that I had a serious condition before me, something more than a faint, and I suspected partial rupture of the uterus, but a rapid outlining of the child with the great distention of the womb excluded this catastrophe, and I knew that I had detached placenta and that my patient was rapidly bleeding to death. Explaining the great danger to those present, the husband and three ladies, and telling them that while I would like assistance, time was too valuable to procure it, I immediately ruptured the membranes, thereby reducing the distention somewhat, but if anything increasing the visible flow of blood.

After a hypodermatic of one-twentieth of a grain of strychnine and half an ounce of ergot by the mouth, I finished dilating the os with my hand as rapidly as possible, and put on my forceps, in the application of which I found a loop of the cord down beside the head. Here I again encountered trouble, for I could not budge the head one inch, it being so large. My patient was rapidly becoming worse, and I saw that unless I extracted the child very quickly she would bleed to death. I thrust the head up and brought down a foot and quickly delivered as far as the head. By external manipulation and pressure I tried to contract the uterus, but only feebly succeeded. I attempted to deliver the head, and failed. I then applied forceps and again failed. I then performed craniotomy on the after-coming head, thoroughly breaking up the brain; again put on my forceps, and this time succeeded. The placenta came out immediately after the head, together with an immense amount of blood-clots.

I was handicapped during my attempt at delivering the head, for with one exception all my audience deserted me, believing the patient dying, and the scene can better be imagined than described, as all were relatives.

I then gave her a hot uterine douche, and the uterus contracted nicely from the heat. I immediately arranged her in bed, applied heat over the body, used strychnine subcutaneously and warm saline injections into the bowels.

The laceration resulting from such vigorous handling was complete. This I attempted to repair about four hours after the birth of the child, as at that time her condition had slightly improved, and I felt warranted in making the attempt; but the second stitch I took she again began to fail, and I had to desist, and put off the repair of the laceration to some future period.

I continued high rectal injections of the salt solution, and strychnine with the needle every four hours.

It was twenty-four hours before my patient rallied with any degree of certainty. After that she gained strength and blood rapidly without any untoward symptoms.

My treatment consisted of intra-uterine injection morning and night of a weak permanganate of potassium solution, a vulvar pad made by wringing a sterilized napkin out of a five-per-cent. creolin solution, and seeing that everything about her was as absolutely clean as heat in some form could make it; internally the most nourishing food possible, with strychnine and iron. She never had more than one and a half degrees of fever, and that on the fourth day, just before I moved her bowels.

Two very peculiar phases of her case I wish to bring out and which I did not understand. There never was (after the first few hours of oozing from the tear) the slightest amount of lochia, not even enough to make the least stain on her napkin. Again, there was absolutely no secretion of milk, nor any swelling, tenderness, or any change whatever in the breasts, though these glands were well developed.

Though I have sought diligently, I can find no satisfactory reason for this accidental hæmorrhage to have happened; she had every attention that money and kindness could bestow, and the health and history of herself and her husband are as near perfect as it would be possible to find.

My only theory is that it was the result in some manner of the rapid taking on of fat after marriage and during pregnancy. I am strengthened in this belief by the abnormal condition of the child, which weighed close to 13½ or 14 pounds. The exact weight by ounces I unfortunately cannot give, as it was disposed of during my constant attention to the mother, and though I ordered it weighed it was done carelessly by a neighbor, who said it weighed *about* 13½ or 14 pounds.

The placenta showed no signs of fatty or other degeneration to the eye, but the clot adhering to it showed that the detachment was complete.

Eight weeks from the day of the birth my patient was operated on and the laceration repaired, with perfect result. She is now in the best of health, and says she feels as strong as she ever did in her life. I would consider it a flattering compliment, indeed, if my paper should provoke some discussion, and I invite it most earnestly, for I wish further light on the subject.

Papillion, Nebraska.

CLOUDY URINE.

BY E. C. HILL, M.D.

The presence of an unorganized sediment in urine signifies as a rule merely a change in temperature or chemical reaction, owing to which the solvent power of the fluid for the substance precipitated is diminished or nullified. The presence of such a sediment bears no relation whatever to the amount of the ingredients in the urine. With the exception of the slight cloud of mucus seen normally in cooled urine, organized urinary deposits are always pathological. On the whole, however, cloudy urine is a less serious indication than is a very clear renal excretion, such as we see in diabetes mellitus and chronic Bright's disease.

For the accurate study of urinary sediments the microscope is an absolute essential. A centrifugal machine for the rapid settling of casts and other suspended matters must be considered a necessary adjunct to the microscope. By the aid of the centrifuge one gains not only more delicate but more correct results, since the urine can thus be examined in a perfectly fresh condition before any chemical decomposition takes place with pre-

cipitation of uric acid, calcium oxalate, earthy phosphates, and other sediments resulting from acid or alkaline fermentation.

Urates are by far the most common of urinary deposits, and consist ordinarily of the mixed acid urates of sodium and potassium, which are much less soluble than the corresponding neutral urates, from which the former salts are produced. Acid urates vary in color from a light pink to a deep red. They are much more soluble in warm than in cold water and are hence often thrown out of solution as the well known "brick-dust" deposit on cold winter nights. Calcium urate is of rare occurrence as a urinary sediment, appearing as a light gray amorphous powder; like sodium and potassium urates, it is found as a deposit only in urine of acid reaction. Ammonium urate is observed in decomposing alkaline urine in connection with the so-called triple phosphates as a whitish granular sediment.

The distinctive chemical test for all forms of urate deposits is the clearing up with heat, at a temperature below the coagulation point of albumen. Under the microscope the acid urates of sodium and potassium are usually amorphous, and pinkish in hue; they are rarely seen as fan-shaped and circular radiating crystals of a reddish-brown or yellowish tint. Ammonium urate often occurs in the form of little brown balls with spicules, the so-called "hedgehog" crystals.

Uric acid is a very insoluble substance, normally present in the urine in the form of the neutral or acid urates; from these salts uric acid is precipitated by an increase of acidity, particularly when the urine is of low specific gravity and deficient in pigment. To the naked eye uric acid appears as a crystalline sediment resembling grains of red sand or Cayenne pepper, and under the microscope appears as large and beautiful crystals of various forms, the lozenge-shaped predominating—they are frequently arranged in a superimposed manner into rosettes and other composite combinations. Uric acid crystals are readily distinguished from any other (except urates and cystin) by their lemon-yellow or reddish-brown color.

The earthy phosphates (calcium and magnesium) constitute the most common sediment in urine of alkaline reaction; are usually soluble in acetic acid, being in this way discriminated from other urinary deposits. The color of a phosphatic sediment is usually gray, but in the presence of hæmoglobin has a reddish tinge. Under the microscope the earthy phosphates commonly appear granular and amorphous. That of calcium, sometimes observed in feebly acid urine, is crystalline and wedge-shaped or conical, the crystals being often grouped in a radiating manner point to point. The so-called "triple" phosphate of ammonium and magnesium is seen normally in urine which has undergone ammoniacal fermentation outside of the body. When present in freshly passed urine such a deposit is always pathological, indicating ammoniacal decomposition within the bladder as both a result and a cause of cystitis. The crystals of the "triple" phosphate are relatively large and colorless, having the form ordinarily of a triangular prism with beveled ends, hence the name of "coffin-lid" crystals.

Calcium oxalate is rather a common sediment, often mistaken microscopically for a cloud of mucus. It is found in both acid and alkaline urine, especially after the patient has eaten freely of rhubarb, tomatoes and other vegetables rich in oxalic acid. Calcium oxalate crystals are usually octahedral in shape, giving the appearance of a square crossed by two diagonal bright lines, like the back of a square envelope; they are much smaller than those of the triple phosphate, from which they are further distinguished by their insolubility in acetic acid. A much rarer form of calcium oxalate crystals is that resembling a dumb-bell.

Hippuric acid is occasionally met with as a urinary sediment, in the form microscopically of fine needles or of four-sided rhombic prisms with beveled ends and edges. A deposit of hippuric acid is met with most frequently after the ingestion of benzoic acid or of certain aromatic vegetables—cranberries, for instance.

Calcium sulphate is a very rare sediment, occurring only in acid urine of high specific gravity. The crystals are radiating colorless needles.

Calcium carbonate is also an exceedingly rare deposit in the human renal excretion, and found only in alkaline urine as a whitish

deposit that dissolves with effervescence in dilute acids, and which under the microscope is shown to be composed of concretions of little spheroids.

Cystin is occasionally met with as a lemon-colored deposit in urine of faintly acid reaction. This substance contains twenty-six per cent. of sulphur. On standing for some time the deposit is apt to turn of a greenish hue and develop the disagreeable odor of sulphuretted hydrogen. The microscope reveals "mother of pearl" highly refractive hexagonal crystals, which are distinguished from those of uric acid having a similar appearance by treating the specimen on the slide with ammonia; the ammonia is allowed to evaporate, with the result that in the case of cystin we see again the six-sided crystals of this compound; whereas if the crystals were those of uric acid, we get instead ammonium urate spherules.

Leucin and Tyrosin are deposits that are nearly always associated together, being observed for the most part in cases of destructive lesions of the liver. The former occurs in the shape of somewhat striated yellowish spheres resembling oil drops, from which they are differentiated by their insolubility in ether. Tyrosin is observed in the form of tufts or sheaves of very fine needles, snow-white when viewed *en masse*.

Cholesterin in large, thin and nearly transparent plates, with broken corners, is occasionally encountered in the urine of cystitis.

A milky aspect of the urine is sometimes due to the presence of Chyle or Fat; in such an event the turbidity disappears on shaking with ether. Under the microscope one sees different-sized highly refracting globules with dark and somewhat irregular borders.

Melanin is, as its name indicates, a black pigment, significant at times of melanotic cancer and other pigmented tumors, and gives to the urine a dark color on exposure to the oxidizing influence of the atmosphere. It occurs in lumpy granules soluble only in boiling mineral acids or strong solutions of the caustic alkalies.

Mucus and Pus corpuscles are histologically identical, both being immature epithelial cells; the pus corpuscles are developed more rapidly than the mucous cells. A delicate cloud of mucus is nearly always to be seen floating near the bottom of a flask of urine which has stood for some hours. Under abnormal conditions of irritation or inflammation this deposit is greatly increased and becomes viscid, slimy, and ropy in character, permeating perhaps the whole volume of the fluid. As already stated, the nebule of mucus may be confounded with a calcium oxalate sediment, and indeed they are often coexistent, for obvious reasons. A deposit of pus differs from that of mucus in being of a heavy creamy consistency and color, rapidly settling to the bottom of the containing vessel. It is readily distinguished from turbidity due to urates and phosphates by the action of heat and of acetic acid, both of which coagulate a muco-purulent sediment. A simple test for pus consists in treating the deposit in question with a strong solution of sodium or potassium hydrate, which dissolves the corpuscles into a transparent, tenacious, gelatinous mass resembling mucus and poured with difficulty (like the white of an egg) from the test tube. A practical point of differentiation between pus and mucus is the presence in the former instance of albumen in the supernatant or filtered liquid. Under the object-glass pus and mucous cells appear much like leucocytes, from which indeed they are derived. A drop of acetic acid under the cover-glass clears up the granules and reveals the cell nuclei, usually a single one in the case of mucus, and multiple in pus corpuscles. In gonorrhœal urethritis the pus cells are held together in threads and bands by mucin, and are often attended by spermatozoa.

Blood.—On centrifugation the red blood-corpuscles, if present, are thrown down in a dense reddish layer, of a much deeper shade of color than the urates; the supernatant liquid contains a trace or more of albumen. Under the microscope the colored blood cells are usually known easily, from their biconcave discoid form. The difference in level between the central circle and the outer ring is shown by the separate focus of each, one appearing dark when the other is light. In heavy urine the globules become condensed and crenated; in very light urine they take on more of a spherical form. As seen under the glass they are practically colorless, and are not arranged in rouleaux as

in blood from other sources. When the blood in the urine is from the urethra it is passed in a clear state at the beginning of micturition; when from the bladder it is forced out in clots at the close of the act. Hæmorrhage from the ureter is often accompanied by macroscopic casts of the caliber of this canal. In renal hæmorrhage the blood is intimately mixed with the urine, imparting to it a smoky look; microscopic tubule blood casts are always present.

Spontaneously coagulable urine, due to the presence of the Fibrin of blood or lymph, is a rarity in this country. Alkaline pyuria with the formation of gelatinous clots is distinguished from fibrinuria by shaking with water, which in the former instance dissolves and thins the coagulum but has no effect on the fibrin. The latter yields only to hydrochloric acid with pepsin.

Epithelium.—It was formerly believed that the shape of epithelial cells indicated their origin, whether from the kidneys, the ureters, or some other division of the urinary tract. This notion is no longer tenable, since all the characteristic forms are found in the different strata of the lining membrane of the bladder. It is true, however, that a predominance of small round cells (especially when accompanied by casts) implies an affection of the kidney; in pyelitis the columnar cells predominate; in bladder disease the large squamous cells are usually most abundant; epithelial cells from the vagina are even larger than those from the bladder, and are often found joined together in flakes or sheets. Generally speaking, an excess of epithelial cells in the urine is indicative of irritation or inflammation of some portion of the genito-urinary tract. These cells are readily distinguished by their relatively large size and by the single well marked nucleus visible without the aid of reagents. In chronic lesions of the kidney the round cells are partially disintegrated and are often dotted with fat drops.

Bacteria.—One occasionally has to examine a specimen of cloudy urine which does not clear up wholly on filtration. This remaining turbidity is due to bacteria or fungi which are so small as to be able to penetrate the pores of the filter paper. The urine can be rendered perfectly clear by treating with magnesian fluid (one part each of ammonium chloride, ammonium hydrate and magnesium sulphate in eight parts of water), gently heating, and then refiltering. Of the varied forms of micro-organisms that set up putrefactive changes in the urine within or without the bladder, the *micrococcus ureæ* and *bacterium termo* are the most common. The former appear under the microscope as trembling points, isolated or collected in strings; the latter are comparatively large oblong cells with flagellæ. Tubercle bacilli and other pathogenic bacteria can seldom be discovered without the aid of the centrifuge.

Time and space will not permit more than mention by title of tube casts, tumor fragments, parasites, spermatozoa, foreign bodies, and other objects which go to make up a urinary sediment.

Denver, Colorado.

MILK DIET IN ALBUMINURIA.

BY E. B. WARD, M.D.

It would be curious to know by what sort of freak of fancy or fraud albuminurics are put upon skimmed milk as a solitary sustenance. It is done hypothetically, I presume, and comes from high authority, but if any one can explain why a mixture of oil, albumen, casein, water, etc., can be strained through the eliminative organs any easier than one of oil, albumen, and fibrin, let us hear it. It is folly to listen to the vaporings of so-called scientific observers when our reason and revelation revolts against it. Such men ought to get off the earth and let us rest on a foundation of fact and not thin-spun fancies.

A case in point occurred in my own practise several years ago which may throw a ray of light on this subject and which I will briefly relate, premising the facts by saying that all parties are alive and "well as could be expected."

Mr. B—— was advised to go to our college hospital to be operated on for a terrific tic-douloureux, but on his arrival there he was attacked with *la grippe*, which gave him so much additional misery that the original object of his visit was postponed. After a while one of the professors or assistants

made an analysis of his urine, when—*mirabile dictu!*—it was found loaded with albumen and his case pronounced Bright's disease without any further fuss or furbelows, and the diagnosis spiked down.

He was put on a diet of milk and the general regimen allowed in such cases, while the learned professor took advantage of so pronounced a case to give lectures over him to sections of the class, meantime examining his extremities and other localities of the body liable to be surcharged with water.

This thing couldn't last always with a man of Mr. B——'s temperament, and after two weeks or so of hospital experience, he got weary, he said, of seeing them carry people out of his ward feet first, and so ordered a hack and was taken to the cars and came home, where I was shortly called, and he told his story, not forgetting to emphasize his diet of milk, which had been poured down until it fairly oozed from his body.

A line dropped to the "professor" verified the correctness of his story and confirmed the statement that he had Bright's disease, notwithstanding the fact that by this time all traces of albumen, hyaline casts, or any other evidence of the disease, as afforded by the microscope or otherwise, had disappeared.

This condition of things placed me in a very delicate position relative to treatment, knowing—from the professor—that he had the disease. Still I had no evidence of it—couldn't prove it; so, as he was very much reduced, I just put him on beef, milk punch, etc., in generous quantities. The milk punch was the nearest I could get him to the orthodox diet, but he rallied shortly, and is as well to-day as ever, barring that troublesome *tic*, which still bothers him.

A subsequent letter to the learned professor intimating a shade of doubt as to the correctness of his diagnosis brought back the reply that my analyses, treatment, etc., had not changed his opinion; and he had previously informed me at one of our State medical meetings that they had abundant evidence of faulty diagnosis among "country doctors" every day—or words to that effect.

This elegant exhibition of gravel brought forth a verbal answer emphasized by an expletive, viz., that according to the best of my knowledge and belief the faculty could give them pointers on how to make false diagnoses and bald headed blunders.

Years have fled since then, and that young man doubtless knows more now than he did then.

Laingsburg, Mich.

CONTAGIOUSNESS OF INHERITED SYPHILIS.

BY C. C. MAPES.

The question whether or not inherited syphilis is contagious, and indeed whether syphilis as we recognize the malady in its acquired form—*i.e.*, a constitutional disease characterized by an initial stage of so-called chancre with a period of variable length in which the disease is actively contagious, infectious, and inoculable—has been or can be inherited, has been discussed by the authorities since the earliest history of the affection.

Valuable deductions may be drawn from the observations, theories, and arguments of all practical investigators, but the difficulties attendant upon the securing of absolutely reliable individual and family histories are sometimes such as to render logical conclusions—based upon such histories—to say the least, extremely questionable from the standpoint of honest statistical information.

All theories are open to question, and when applied to inherited syphilis, for obvious reasons, they seem doubly so. Theory concerning any subject may have earnest, conscientious advocates, but unless something more tangible than theory alone be evolved, conclusions must necessarily be of questionable value. Logical deductions should be based only upon indisputable facts, not upon theoretical suppositions.

It would be impossible in a short paper to even describe the numerous diseases *presumed* to have their origin in syphilis, inherited and acquired, and I only wish to call attention to a few salient points respecting the inherited variety, with especial reference to its contagiousness. The statement seems warranted that the disease is actively contagious, infectious, inoculable only in the acquired form, and during the earlier stages—*i. e.*, primary and secondary, that period during which the

individual suffers from so-called chancre, mucous patches, etc., and is non-contagious and non-infectious thereafter, though often followed by more or less serious tertiary manifestations—yet Fisher* says:

> Syphilitic babies (hereditary) can only be nursed by their own mothers, owing to the risk of infecting the wet-nurse. Very frequently the life of the child is dependent upon being nursed by its mother in syphilis.

Evans† adds: "We often meet with chancre of the nipple from a mother nursing a syphilitic child." Larrabee at the same meeting made the statement: "Struma is nothing on earth but a debilitated condition of the system, which I take to be a degenerated syphilis." Again: "Syphilis in the child must necessarily be a tertiary form, and in treating the child for this disease we must remember that the symptoms are tertiary, and confine ourselves to this."

If it be true that inherited syphilis is a tertiary form, and if tertiary syphilis is non-contagious, non-infectious, and not inoculable, how is it possible for a child who has inherited the disease to transmit it to either the mother, if she has not already become infected, or to the wet-nurse, producing as has been stated a "chancre of the nipple?" The theory lacks confirmation that a mother can give birth to a syphilitic child without herself being infected. Of course this would not apply to the wet-nurse; but the modes of infection are so numerous and varied that the possibility always exists that the disease has been communicated through other means, although the location, "chancre of the nipple," it must be admitted, suggests the possibility that infection has resulted from nursing a syphilitic infant, but does not prove it.

Parker,‡ based upon an experience extending over a period of twenty years at the East London Children's Hospital, evidently intending to cover both aspects of the subject, formulates the following conclusions:

> The children of syphilitic parents very frequently show manifestations of a disease which is almost universally called "inherited syphilis:"
>
> In a large proportion of the cases this inherited disease is not syphilis at all, in that the disease is non contagious, and would be better named "inherited from syphilis:"
>
> This inherited disease is true syphilis only if it conform to the ordinary tests which pertain to contact syphilis, and prove to be infectious and contagious:
>
> The children of syphilitic parents occasionally inherit syphilis:
>
> The mother suckling a child with such a disease may be infected by it:
>
> A healthy wet-nurse and other persons brought into contact with such a child are even more liable to be infected by it than the mother:
>
> Lymph taken from such a child, even although apparently well at the time, will probably, or possibly, invaccinate syphilis:
>
> In reply to the question, Can a healthy woman give birth to a syphilitic child? the answer must be No:
>
> Many women give birth to children who suffer from what is called "inherited syphilis" without themselves appearing to be infected; the explanation is obvious: this "inherited syphilis" is not syphilis in the true sense, and the mother's so-called *escape* depends on this fact:
>
> There is no recent clinical evidence which fully realizes Colles' teaching, viz., a mother suckling her own syphilitic infant and escaping an infection to which a healthy wet-nurse suckling the same infant, and other members of her family who have merely handled this infant, have succumbed, the latter facts being essential, if only to establish the contagiousness of the infant's disease in any and every given case asserted to be "inherited syphilis."

While his article is headed "Is inherited syphilis contagious?" it will be observed that in the formulated conclusions he takes no decided and positive grounds, either *pro* or *con*, for in Conclusion 2 he states that in a large proportion of cases the disease is non-contagious; in No. 5 that the mother suckling a child with such a disease (inherited syphilis) may be infected by it.

The inference is plain that were it possible for a child to inherit *active syphilis*, its power of transmitting the disease to others would be undoubted, but since it seems that syphilis in the *active* or *infectious* stage cannot be inherited—in other words, that a child having inherited syphilis does not present clinical manifestations of the disease in its infectious, contagious, or inoculable form—the assertion seems unproven that inherited syphilis is contagious.

Louisville, Kentucky.

**Pediatrics*, Volume II, No. 2.

†Discussion before Louisville Clinical Society, 1896.

‡*Edinburgh Medical Journal*, June, 1896, as quoted by *Pediatrics*, Volume II, No. 2.

FRAGILITAS OSSIUM COMPLICATED WITH HYSTERIA.

BY A. P. RICHARDSON, M.D.

Twenty years ago I was summoned to a young woman, twenty-two years of age, and weighing two hundred and ten pounds, to reduce a fractured femur, it being broken at the junction of the middle and upper third. The patient had made a misstep in alighting from a carriage. I was informed that this was the thirteenth time she had suffered a fracture of the thigh. There was about four inches of shortening.

I give the following circumstances concerning the previous history of this somewhat remarkable case, as learned from her mother and herself and by personal observations since. She had sores on her face and neck much of the time until five years old, and had shown a little deformity in the cervical region since the age of seven. She nearly lost the sight of one eye by an ulcer. At eight years of age she broke her thigh bone the first time by falling over a sap-pail. Union had taken place at the end of six weeks, when she fell out of a chair and reproduced the fracture, which united again in due time. A year and a half afterwards she fell from a step and again fractured the unlucky bone. At twelve years of age the same lesion occurred by breaking through the crust of snow. At about this time the catamenia appeared and she likewise suffered from spasms. Ten months afterwards, the spasms being severe, she struck the afflicted member against its fellow and a fractured femur was the result. Four months elapsed and the same accident again occurred,—it was at this time that she first dislocated a shoulder, it being done by a spasmodic action of the muscles, which accident occurred to her about one hundred times in the next ten years, it sometimes being the right shoulder, sometimes the left, and sometimes both. This accident has happened once a week for a year's time. These dislocations were often reduced by physicians and sometimes by the family. Her thigh was again broken at the age of fifteen by a little child three years old falling upon it. In one month afterwards she broke the opposite thigh by a spasmodic muscular contraction, and about the same time she fractured the right humerus, also a rib in the same manner. The same season one of the bones of the leg suffered "solution of continuity," it being run against by a small dog. Four months ensued and the thigh was again broken. Not long after it was twice fractured, once by the other leg dropping upon it. Once her physician dislocated the head of the radius in attempting to reduce a shoulder. Her jaws were sometimes firmly set together for hours and even days. Again, her sight left her temporarily. Her teeth are mostly good and firmly set in their sockets, so that extraction of a molar requires more than ordinary force. Her general health has been quite good, so that she did housework and sewing when not engaged healing fractures and dislocations.

This woman, now about forty years old, married at the age of twenty-five. She has five living children. Her labors were uncomplicated. She has for many years been on crutches on account of the great shortening of one femur. She weighs nearly two hundred and fifty pounds, does her own work, and is quite happy. A little over a year ago she fell over backwards on some stone steps, where she was found perfectly helpless. She was placed upon a bed, and made no voluntary movements with feet or hands for several weeks; was a burden to herself and those who moved her. She probably sustained a severe concussion of the spine and a strain of the muscles of the back. It was not ascertained that any bone was broken. She gradually recovered and is now about her work as usual. The hysterical element was very marked until about the time of her marriage. It frequently became necessary to give an anæsthetic to reduce her shoulders. Many times after the head of the humerus had been replaced (the dislocation was generally, if not always, forward under the coracoid process), it became necessary to have a man each side of her holding each arm for several hours. If this precaution was not taken and the surgeon be about to depart with the thought that he had done a good job, she would suddenly give a hysterical twist to her arm and body, then lie still again, but the head of the humerus would be found out of its socket.

Walpole, New Hampshire.

FRACTURE OF SKULL.

BY WILLIAM C. DUGAN, M.D.

A man aged about fifty-five years, an employee at the Government works on the river, was injured a few weeks ago by the premature explosion of a blast. He was brought into the hospital in a dying condition: Pulse thirty to the minute; respiration very irregular; unconscious; reflexes absent. There was a very large hæmatoma and considerable laceration over the left eye; profuse hæmorrhage from the nose, also from the mouth and ears, while the blood had dissected its way forward under the conjunctivæ.

Recognizing it as one of those cases of extensive fracture of the base, I hardly thought it necessary to operate, believing that death would result in a short time any way. However, realizing this, after duly considering the matter it was decided, although the case was apparently hopeless, to make an attempt to save the man's life. He was hurriedly prepared for an operation, then a flap made, the tissues turned up (which owing to the extravasation I suppose were two inches in thickness), going down through this ecchymotic mass to the bone.

It was found the supraorbital arch was driven in and that this comminuted fracture extended up to the frontal eminence. By the use of the mallet and chisel the broken bone was freed from the unbroken part and the former removed with a pair of forceps, taking out the supraorbital arch, and all tissue up to the frontal eminence; also removing part of the orbital plate of the frontal bone, going back to the middle fossa in the brain. Quite an accumulation of blood was found under the bone, and on removing this clot the membranes presented, but not pulsating, and very dark in color. Next the membrane was incised and a large subdural clot removed. The frontal lobe of the brain was found to be considerably bruised, and upon being incised punctate hæmorrhages showed all through the tissue. Gauze was packed into the wound extending back to the middle fossa, extending along by the cribiform plate of the ethmoid—this was within the dura—while another and larger piece was placed through the external wound and left hanging out, to secure drainage from without the dura. I believed then the man would die in a very short time. The next morning, to my great surprise, he was conscious, and on my visit to the hospital told me he was feeling fairly well. He gradually improved and made an uninterrupted recovery. His pulse the morning after the operation was forty to the minute, and gradually rose to the normal.

One feature of the case I am unable to explain, viz.: The man has complete loss of vision in that eye. I believe, however, this is due to the fracture extending back to the optic foramen and injuring the optic nerve at its exit from the cranial cavity. Usually in such cases, if there is any loss of vision, it is half the visual field of each eye, indicating that the lesion is back of the optic commissure; while if one eye only is involved it shows it is anterior to the crossing of the fibers.

The case simply illustrates what may sometimes be done in apparently hopeless fractures of the base by early operation and drainage. From year to year I am more and more encouraged in these basal fractures, and this case certainly teaches the most important lesson, that no case of basal fracture need be discarded as absolutely hopeless, and that the part involved should be freely exposed and drained. I have had several such cases lately and treated in like manner with equally good results.

Louisville, Kentucky.

WINE AND THE SACRAMENT.

The W. C. T. U. are making—at least some branches are—a crusade against fermented wine at the communion table. They even insist the wine of Cana and others mentioned in the Scriptures were *unfermented.* So much for dogmatic theory.

If these poor creatures with a "mission" only knew it, grape juice that is unfermented is not *wine.* Either Christ did not transform water into wine, or else it must have been a genuine fermented article. There is, nowhere in either the Old or New Testament, any warrant for the suggestion that there is any fluid called wine that is unfermented.

THE MEDICAL AGE.

A SEMI-MONTHLY REVIEW OF MEDICINE.

—PUBLISHED BY—

WILLIAM M. WARREN, Medical Publisher, Box 470.

All communications regarding papers, reports, etc., should be addressed to the Editor of the MEDICAL AGE, P. O. Box 470, Detroit, Mich.

Matters relating to advertising space, etc., to be addressed to the publisher, William M. Warren, Box 470, Detroit, Mich.

The editor cannot engage to return rejected manuscripts or to correspond with the writers thereof, unless such are accompanied by sufficient postage.

DETROIT, MICH., NOVEMBER 26th, 1897.

Editorial.

IS THE ATHLETE HEALTHY?

This is a most pertinent query; and it will be remembered by many readers that the "Man and Wife" of Wilkie Collins was especially written to point out the evils of overtraining that frequently accrue to athletic sports. The constant development of all departments of sport, resulting in large numbers of persons entering the professional arena every year, combined with efforts to "break previous records," renders pertinent the question, Is Athletism Healthy?

Every man who hopes to carry off athletic honors must to a greater or less degree undergo special vigorous training which, as all medical men know, must involve the development of many muscles or series of muscles, including also raising or lowering of weight in order to facilitate action when the trial of strength comes. All this involves a lengthy period of arduous work and most careful dieting. There are medical men today living who remember a certain prize-fighter dying in the ring of atrophy of the heart as the result of his peculiar training and dieting. And after a competition is over the same athlete who has been well and finely trained is prone to allow his overdeveloped muscles to become flabby, and naturally in course of time he will go back to his former weight. What is then his condition? Is he better or worse for this? Frankly, we say worse. The trainer of race horses well knows, if he is an expert at his business, that once he gets the animal in condition and allows him to relapse he never can get him absolutely as fit again.

We are led to indulge in these remarks by the fact that several English newspapers have recently been discussing the effect of manual training on the athlete's health, and in the *St. James Gazette* appears an article by Eugene Sandow, "the world's strongest man," in which he, as the result of practical experience, condemns the modern system of training, and advocates simple rules for normal development. Of course how far we may accept his opinion is a matter of doubt, inasmuch as he must figure more or less among that class of individuals who make their living by trickery and always have the showman's idea foremost. In spite of trickery, however, the fact remains that he is a wonderfully strong man, and perhaps his words are entitled to a certain degree of weight. He declares the word "athlete" is both misused and abused; that the real athlete is not the man who is a skilful oarsman, a fleet sprinter, or a clever boxer, "but the man who by constant and persistent exercise has raised his entire bodily strength and health to such a state of unity that he is fit to perform any feat requiring muscle and activity, providing he receives a little special tuition in that particular feat—he is, in short, a man who has all his muscles and organs working in perfect harmony."

There are very few medical men who will dispute Sandow in so far as the foregoing is concerned.

As to the question whether training produces strength in the best sense of the word, Sandow very emphatically gives the negative, and adds:

> The training which an oarsman or a runner undergoes not only does not conduce to health, but is positively pernicious and dangerous. Training so far as amateur athletes are concerned is largely a matter of dieting and living by hard and fast rules. It means living for a considerable length of time under entirely different conditions from those which a man is naturally accustomed to.
>
> This is altogether wrong, as he goes directly contrary to Nature; for Nature gives a man a craving for certain articles of food and drink, and the fact that a man does not crave for them shows plainly these things will do him no good. The pleasure he gets in having that which he desires will help him to digest and assimilate it.

The young man who has prior to such period of training lived an ordinary life, when he attempts athletism and puts himself in the

hands of his trainer soon finds himself deprived of many little luxuries which he has been accustomed to — such, perhaps, as a glass of beer or a pipe of tobacco—and also finds himself obliged to do an extra amount of physical work. What is the physiological result? It is making the human engine do too much work and at the same time use fuel perhaps unsuited to it; and the result is that the individual develops to a large extent certain muscles, but at the cost of weakening the whole physical economy. While he does this, as Sandow suggests, he does not produce anything like the muscle and "go" which he might obtain by more judicious and general methods with but a tithe of the exertion.

The building of a constitution may be compared to the building of a good house. As a massive roof is put upon the walls and every brick is laid one upon the other, so should the human body be evenly developed; and is it not true with a trained athlete if this is not the process? In him there is found a lump of muscles here and a development of muscle there, and not more than one in ten thousand presents a symmetrical muscular development. How few men who have well developed biceps have a well developed chest; how few with a fine calf show a proper development of the upper part of the body? The result of this irregular development is that the whole fabric is weak, just as the well known aphorism declares a "chain is no stronger than its weakest link." The athlete who trains claims that when he develops the muscles he needs most he need care about nothing else; but is not this a sad mistake? The man is the strongest who is the best developed all round; in brief, the athlete must use his mind, for unless the will be concentrated on the work in hand the labor is wasted. Take the case of the stone-breaker whose method is purely mechanical; though he uses his muscles in hard work every day in the year it is unlikely his strength will materially increase. The result is that we must agree with Sandow's advice that to be strong the would-be athlete should live his ordinary life so long as it is a temperate one; should eat and drink within bounds what his fancy dictates and what experience has taught agrees with his stomach; that he shall smoke in moderation if he has been accustomed to the use of tobacco—in fact, that he need not deny himself or live a life of strict asceticism. If he exercises every one of his muscles in turn and put his mind as well as his back into it, he will reach the acme of healthfulness.

MICHIGAN SANITARY WORK USED ABROAD.

L'Actualité Médicale, a journal published in Paris, contains an extensive article on Ozone and Ozonometry, their status in various countries compared, being a paper presented to the Congress of Hygiene and Medical Demography at Brussels in August last, organized by the Royal Society of Public Medicine of Belgium. In this paper the author, Foveau de Courmelles, M.D., makes much use of the extensive statistics of observations of ozone in Michigan, compiled in the office of the State Board of Health, and published in its Annual Reports. He says: "Let us also remember that A. Fortin, Baker, and previous to them, Schonbein at Berlin in 1847, Spengler at Mecklenbourg in 1848, Clement at Frankfort in 1849, Schorndorff in 1848, and various physicians at Königsburg in 1852, have confirmed the existence of abundance of ozone in the ambient air during epidemics of grippe." He calls attention to the fact that the statements made by Doctor Baker are especially to be relied upon, because "this observer has made fourteen years' research, and has prepared statistical tables covering these fourteen years."

Doctor Foveau de Courmelles quotes at length the conclusions proved by the Michigan tables, and adds: "The importance of the study of the environments, the surroundings so modificatory of the beings that live therein—men and microbes—is undeniable. And if certain seasons favor the outbreak of such or such diseases, it is that, aside from the heat or cold which favors the morbid germs, there are other elements acting in the same direction and putting the organism in a state of inferiority. Atmospheric electricity —if one may judge from the benefits derived from therapeutic electricity — is an element which cannot be neglected; the same is true of ozone. . . . We have found in the ambient air a basic substance which is not ammonia,

and of which the nature is still to be determined."

Doctor Baker, Secretary Michigan State Board of Health, commenting on the foregoing, declares: "This basic substance is soda, as shown by the spectroscope. According to my numerous observations with the spectroscope, sodium is always present in our Michigan atmosphere."

THE MYSTERY SOLVED.

In THE MEDICAL AGE for September 25th, under the caption of "What Is It," we reproduced three cuts from photographs of "an unknown creature" purported to have been taken from Matanzas Inlet, Florida. We then expressed the opinion that this was the result of art rather than the product of Nature. The following letter and the accompanying cuts are partly explanatory:

Editor MEDICAL AGE:

On page 563 of THE MEDICAL AGE of September 25th I observe cuts of a certain creature that has been a puzzle to you, and I wish to say that they are representations of an entity which has been altered in appearance with the knife of the fisherman for the purpose of making ready sales of the curiosity.

This creature is found on the coast of Florida and vulgarly known by the title of "Monkey Fish." I possess a specimen in my collection with a tail upwards of three feet in length, and herewith send photographs of the same.

It will be observed the body and tail of the animal are covered with sharp bony points.

Photograph No. 1 represents the integuments (1) covering the upper jaw dissected back and turned upward from 3. At point 2 in both photographs the apparent wings are derived, being merely the tissues covering the breast, throat and under jaw of the animal turned outward and dried.

This fish belongs to the order Anplupneusta, family Proteidæ, genus Proteus, species *Proteus anginus*. In other words, it belongs to the same order as the skates and rays, of which more than thirty species are known.

W. G. HUTCHINGS.

Madison, Indiana.

Doctor Hutchings is certainly in error as to his ichthyological classification. There is no such order of fishes as named; further, the sub-family Proteidæ pertains to the Batrachians. The genus Proteus embraces the mud puppies, including also the gilled salamanders; and the *Proteus anginus* is the blind salamander of the dark caves and found in the Mammoth Cave of Kentucky and caves of Augsburg, Austria.

The evidence as above given, however, taken in connection with the photograph, solves a good portion of the mystery, inasmuch as it is apparent the creature belongs to the sub-order Masticura, which embraces the whip-tailed rays. Only careful personal examination of the creature itself can determine definitely its species, but there is a suspicion it may prove to be either the *Urolophius jamaicensis* or *Dasytis sabina*.

Cannot some of the Southern readers of THE MEDICAL AGE send the editor a dried unmutilated specimen of this creature?

CRIMINAL ABORTION.

At a regular monthly meeting of the Newport Medical Society, held August 18th, a paper previously communicated to the Rhode Island Medico-Legal Society, on August 12th, was, by request, read by Doctor H. R. Storer, in which it was shown that the induction of unnecessary abortion is probably as prevalent in this country as when the subject was brought to the attention of the American Medical Association by him forty years ago, in 1857. The Society thereupon appointed a committee consisting of Doctors Valentine M. Francis, Christopher F. Barker, Peter F. Curley, Thomas A. Kenefick and Charles P. De La Roche "to obtain through correspondence with medical societies and otherwise such action by the profession as may tend to lessen the occurrence of criminally induced abortion."

The Society accordingly asks THE MEDICAL AGE to bring this topic before its readers in order to secure the aid of the same in a movement which should be universal on the part of physicians to check the present decrease of the rate of increase of population.

EDITORIAL NOTES.

Lumbago and Sciatica.—

Doctor Crawford, in the *Medical World*, suggests every thirty minutes for a few doses, then hourly, $\frac{1}{250}$ grain of nitroglycerin, along with $\frac{1}{134}$ grain each of gelseminin and colchicine. He adds: "Thirty such doses usually are enough"—which surely ought to be true. He insists the patient will be able to walk in twenty-four hours, and that the combination has never failed in acute or chronic cases for which he has prescribed during five years.

A trial will do no harm, though one may be skeptical as to such uniform results as are claimed.

A Cancer Quack in Trouble.—

Hudson, the notorious cancer quack in London, England, who has advertised throughout the length and breadth of the continent, even sent circulars to Canada and the United States, and who seems to have been able heretofore to evade the meshes of the law, has at last been brought to book. He killed an old woman in Yorkshire by one of his arsenical cancer plasters, and has been adjudged guilty of manslaughter.

According to his own evidence he is not "Doctor Hudson," but one William Lennox Watson, formerly a petty spirit merchant who purchased a "receipt" from some itinerant.

Good Sense.—

The *Medical and Surgical Reporter* recommends that every society, and especially the American Medical Association, appoint an editorial committee which should reject, curtail, or abstract every paper not of suitable length and interest, with the same impartiality as if it were presented for publication.

Better yet, the editors of association journals should be delegated the power and privilege (and exercise it) of cutting from articles all repetitious material, useless padding, attempts at self-advertising, or proprietary medicine puffing.

Man Versus Woman.—

Experiments recently made by French hypnotists seem to show in spite of the supposed inferiority of woman to man in point of nervous and physical organization it is a third easier to place a man under the influence of hypnotism than to induce a woman to accept the same.

Yes, and a woman will suffer three times as much pain as a man without a murmur. Wherein does the inferiority lie? In man's supposition of his own superiority, and "he is a poor critter at best."

Anæmic Vertigo.—

Burnett declares the rare form of vertigo which arises from local anæmia of the labyrinth may be diagnosed by the presence of tinnitus and dull hearing and by the fact that the symptom is suppressed temporarily by the inhaling of a few minims of amyl nitrite after eating.

The Obstetric Binder after Labor.—

Jewett believes a firm binder is frequently of material service in the second stage of slow labor, especially in relaxed condition of the abdominal wall, by furnishing a *point d'appui* for the intra-abdominal pressure.

Items and News.

Vivisection.—

Anna Sargent Turner, of Saugerties, New York, thus writes of the effect of vivisection on the medical fraternity practising it:

"Hospital patients are regarded by vivisectors as 'clinical material,' and experiments which have been tried hundreds of times on dumb animals are tried again and again on human beings—not for their relief nor cure, but that new facts in abstract science may be noted—facts which can never help the physician in his treatment of men and women. *The Lancet* of November 3d, 1883, described experiments made by vivisectors with a powerful drug on some cats, and then said: 'In addition to these experiments we have made some observations clinically,' and gave details as to how the patients experimented on felt throbbing pains in the head, turned blue in the face, fell to the ground in a swoon, and so on. In the *British Medical Journal*, August 16th, 1890, an eminent surgeon (an advocate of vivisection) was reported to have said at a medical conference: 'It is a serious thing to experiment upon the lives of our fellow men, but I believe the time has now arrived when it may be tried.' The same journal for June 12th, 1897, says: 'The authors have also experimented on the effect of the extract on diabetes artificially produced in various ways both in men and animals.'"—*The Globe* (Toronto).

Jeddart Medicine.—

A stranger came to Jedburgh one day, or, as the natives called it, Jeddart. He looked somewhat of an invalid, and he asked one of the casual inhabitants to direct him to the chemist's shop.

"The what, sir?"

"The chemist's shop."

"Ay, an' what kin' o' shop's that, na?"

"Why, the place where you can buy medicine."

"Eh, sir, we've nae sic shops as that in Jeddart."

"No? What do you do, then, when any one falls ill? Do you take no medicine?"

"'Deed, no; deil a drap. We've just whiskey for the folk and tar for the sheep, an' that's a' the fessick we deal in."—*Scottish Leader.*

Vanillin.—

The manufacture of vanillin had, until a comparatively recent date, long remained in the hands of one firm, who held the patent rights in the process of manufacture. Within the last two years, however, others have entered the field. The first result of competition was an appeal to the court; this failing, a fierce war of rates commenced, and vanillin dropped in price from $5.50 per ounce to $3 per ounce. The war continued to wage merrily on until recently the price was reduced to $1 per ounce. We are not informed as to the probable cost of manufacturing this article, but it seems certain that if it can be produced without loss for $1 per ounce the manufacturer made enormous profits at $5.50, or even $3, per ounce. In all probability, however, the present price is below the actual cost of production.—*Western Druggist.*

Staff Nurse: Old Style.—

The greater masters of the commonplace,
Rembrandt and good Sir Walter—only these
Could paint her all to you: Experienced ease,
And antique liveliness and ponderous grace;
The sweet old roses of her sunken face;
The depth and malice of her sly gray eyes;
The broad Scot's tongue that flatters, scolds, defies;
The thick Scot's wit that fells you like a mace.
These thirty years has she been nursing here,
Some of them under Syme, her hero still.
Much is she worth, and even more is made of her.
Patients and students hold her very dear.
The doctors love her, tease her, use her skill.
They say, "The Chief" himself is half afraid of her.

—*The Practitioner.*

Street Noises.—

A wise crusade against the incessant and often avoidable noises of city streets has lately been started by the daily press. It is to be hoped that this will be kept up until some permanent relief is obtained and until some of the offensive noise-makers have learned that they are trespassing on the rights of their fellows.—*American Medico-Surgical Bulletin.*

New Flexible Film.—

An English concern will shortly place on the market a new flexible film, in cut sizes, which is as transparent as glass, rigid, and flexible enough for roll holders for cameras. It requires no backing of paper, is impervious to water, lies flat during all the operations, and last but not least, will be as cheap as glass plates.—*Scientific American.*

The Patent Nostrums.—

These are fetich survivals of polypharmacy of the medicine men. Their atavistic persistence in the nineteenth century is a reflection alike on popular intelligence and commercial honesty.—*Journal of the American Medical Association.*

Book Reviews.

VADE MECUM OF OPHTHALMOLOGIC THERAPEUTICS. By Doctor Landolt and Doctor Gygax. Flexible cloth; 32mo; pp. 138. Price, $1.00. J. B. Lippincott Co., Philadelphia.

The contents sufficiently explain the character of the volume, which contains no less than 326 prescriptions, and cannot help but be of value to every working ophthalmologist. It presents in concise form indispensable facts of special therapeutics.

THE PHYSICIAN'S PERFECT CALL LIST AND RECORD. By Doctor G. Archie Stockwell, F.Z S. Flexible morocco; long 66mo; pp. 200. Price, $1.50. William M. Warren, Detroit.

The fact this publication has reached its twelfth year is sufficient evidence of its increased popularity and practical usefulness. Its paper and binding are alike superb. In size and shape it is by long odds the most convenient and the best of the "Visiting Lists," and moreover it will not crumple or break down in the pocket.

A prominent feature is the absence of all advertisements and other "dead wood," and the extremely convenient arrangement of its most practical contents. Of the information afforded that most demanded for ready reference is to be found upon the inside covers or on the fly leaf; and the posological table of doses has been entirely rewritten and brought up to date, so that it is most thorough and complete.

Especially commendable is the Obstetrical Table in two colors, and the arrangement for the concise keeping of all accounts, credits, debits, profit and loss, etc. No physician can afford to be without this work.

THE CENTURY. Price, 35 cents; $4.00 per year. The Century Co., New York.

With the November number this periodical enters upon its twenty-seventh year. During its long existence, by reason of its many notable successes, it has won an assured and commanding position. During the coming year *The Century* will maintain its exceptional position as a magazine of entertainment and as a leader in art and thought.

Its pictorial features will be notable, and it will command the services of the foremost artists, illustrators and engravers of this country and of Europe.

Nothing like a complete announcement of its literary features can be attempted now. Dr. Weir Mitchell, whose novel of the American Revolution, "Hugh Wynne," is the great success of the year, has written a new story for the present volume. It bears the piquant title, "The Adventures of François: Foundling, Adventurer, Juggler and Fencing-Master during the French Revolution." The tale is full of romance and adventure. Mrs. Burton Harrison contributes a new novel of New York life, called "Good Americans," in which contemporaneous social types and tendencies are brightly mirrored and described.

There will be a group of clever stories about horses and people who like horses, under the general title of "Gallops." "A Woman's Reminiscences of the French Intervention in Mexico" will be given in a series of graphic and highly picturesque papers by Mrs. Cornelius Stevenson. Further contributions to the interesting series of "Heroes of Peace" will be made by Jacob A. Riis, Gustav Kobbé, Elizabeth Stuart Phelps Ward, and others

For the benefit of readers of *The Century* an unusual combination offer is made for this year. There has been issued "The Century Gallery of One Hundred Portraits," made up of the finest engravings that have appeared in the magazine, and representing a total expenditure of nearly $30,000. These are printed on heavy plate paper, with wide margins, like proofs. The retail price of the gallery is $7.50, but this year it will be sold in connection with a subscription to *The Century*, the price of the two together being $6 50.

THE YOUTH'S COMPANION. Price, $1.75 per year. Perry Mason & Co , Boston.

During the year 1898 this valuable family paper will present five strong serials in which new authors and old favorites treat many themes of general interest. It is also expected to publish a serial by C. A. Stephens, entitled "Laughing Sylvi's Boy," said to be one of the most successful stories this author has ever written.

Jesse Lynch Williams will treat of the romance of college life in the serial entitled "The Freshman;" it tells how "Deacon" Young, an Illinois farmer, struggled into Princeton, how he ran away, and how he went back. Irving Andrews will write of the wondrous wealth of the Klondike and of the Gold Fields of the Yukon generally; this is the record of a miner who wintered on a claim inside of the Arctic Circle, and gives the experience of himself and partners. Marguerite Tracy will contribute a serial entitled "Ferieda Fairfax, Writer"—this is the story of a successful failure. Edith Ames Fairfield will tell "The Story of a Bee Farm." William J. Long in his "Making of Zimri Bunker" tells of the thrilling conflicts that raged around Quaker Island in the war of 1812. Jacob A. Riis will write of "A New York Newsboy;" George Ade of "When Mary Saw;" Elizabeth Y. Rutan of "Barty Grogan;" Alvan F. Sanborn of "Danny Casey's Service."—The four latter constitute Stories of the Slums. There will appear not less than four Stories of Working Girls by well known authors, an equal number of Narrow Escapes of Firemen, Stories of Patriotism, Brave Deeds of Locomotive Engineers, some Bicycle Romances, and Ballads of American History. In addition will be a large number of Stories of Adventure as well as short stories.

History will be the more real the more one knows of the men who make it. In *The Companion* for 1898 Lincoln, Grant and Jefferson Davis will be described by men who knew them intimately. Madam Nordica and Max O'Rell will contribute fascinating autobiographical papers.

THE LIVING AGE. Price, $6.00 per year. The Living Age Company, Boston.

This journal is a literary repository, richly and amply filled with the most readable articles in the reviews and journals of Europe. Being issued every week, it keeps pace with the movements of

the world, and exhibits the living, restless spirit of the age, as developed in its literature, science, commerce, politics, and in the various arts of life. It does not limit its sphere to the unabridged reproduction of the ablest articles from the leading British periodical press, but its contents also include translations from the French, German, Spanish, Italian and other continental sources, and also, in its monthly supplements, readings from leading American magazines and readings from new books. Again, its scope embraces not only the more solid matter of the reviews and quarterlies, but its readers receive a fair supply of lighter literature, including some of the best fiction of the day, and poetry.

In its issue of November 6th were given the opening chapters of a novel, "With all Her Heart," translated from the French of M. Rene Bazin expressly for this magazine.

This novel is a vivid portrayal of life in a French industrial town, and it is interesting alike as a social study, and as a realistic, yet delicate story of modern life.

Les Annales Litteraires et Politiques described this as "an epoch-making story."

Arrangements are being made for the serial publication, following the conclusion of "With all Her Heart," of a work of exceptional interest and importance; and during the year other translations from the best writers are promised, with serial or short stories by the leading British authors.

The beginning of a new volume, January 1st, is an excellent time for the beginning of a subscription, and the publishers still present to new subscribers for 1898 the eight parts of 1897, containing the first instalments of "With all Her Heart."

ST. NICHOLAS. Price, 25 cents; $3.00 per year. The Century Co., New York.

This magazine, conducted by Mrs. Mary Mapes Dodge, enters upon the twenty-fifth year of its successful career as the leading publication for boys and girls with its November issue. A remarkably varied and attractive list of features has been secured for the coming year, including contributions by several of the foremost writers of the day.

Rudyard Kipling's first "Jungle Stories" were written for *St. Nicholas*, and this year he will contribute a new series called "The Just-So Stories," written in a new vein—fantastic stories. Some stories, Mr. Kipling says, are meant to be read quietly, and some are meant to be told aloud. Some are for rainy mornings and some for long, hot afternoons, and some are for bedtime. These stories of Mr. Kipling's are meant to be told "just so," and one must not alter one single little word. They are stories about animals—queer, very queer animals.

Mr. Frank R. Stockton will contribute "The Buccaneers of Our Coast." This is a series of narrative sketches in which will be treated the origin, characteristics, adventures, and exploits of that wild body of sea-rovers calling themselves "The Brethren of the Coast," who during the greater part of the seventeenth century ravaged and almost ruled the waters and shores of the West Indies.

Mr. S. T. Trowbridge has written a serial, "Two Biddicut Boys, and Their Adventures With a Wonderful Trick Dog." This is marked by his best qualities and is full of effective interest. Mr. W. O. Stoddard writes a stirring romance of chivalry, "With the Black Prince." A fairy-tale of science, "Through the Earth," by Clement Fezandié, is a serial of the Jules Verne order.

There will be the usual number of articles of instruction and entertainment, short stories, poems, and jingles, as well as hundreds of pictures by leading artists.

MCCLURE'S MAGAZINE. Price, 10 cents; $1.00 per year. The S. S. McClure Co., New York.

Considering the importance of his work and the hardships he endured in pursuit of it, there has been singularly little written about the young Swedish explorer, Doctor Sven Hedin. A few months ago he completed a journey of three years and seven months in the most inaccessible and least known parts of Asia. He traversed mountain passes nearly fifteen thousand feet high, in a temperature of nearly forty degrees below zero; he explored and measured a lake nine hundred feet deep; he climbed nearly to the top of an unexplored mountain twenty-five thousand feet high; he traversed the unexplored Takla-Makan Desert, and in doing so went nine days without water, losing all but two of his companions, and coming off himself with the merest spark of life. R. H. Sherard has prepared a full account of Doctor Hedin and his discoveries and adventures, based largely on conversations with him, which is published in the December issue, along with numerous illustrations from sketches and photographs made by Doctor Hedin himself during his journey.

Anthony Hope's new romance, "Rupert of Hentzau," a sequel to "The Prisoner of Zenda," appears in the December issue.

VICK'S ILLUSTRATED MONTHLY MAGAZINE. Price, 50 cents per year. Vick Publishing Co., Rochester, New York.

The November issue offers much that is useful and interesting to gardeners, and all who raise plants for profit or pleasure. The third number of a continued article on the evergreen, or rather the coniferous, trees that are hardy in the United States is practical and comprehensive; it is by James MacPherson. There is an article on planting "Nut Trees;" one on "Wintering Plants in the Cellar;" "Peach Bud Protection;" "Farmer's Homes;" "Flowers on the Farm;" "The Contour of the Lawn's Surface;" "Vegetables Stored for Winter;" "Ornamental Asparagus;" "Some Odd Plants and Trees of Florida;" "Preparing for the Flower Garden;" "Violets and Pansies;" "Pruning Lilac and Weigela."

APPLETON'S POPULAR SCIENCE MONTHLY. Price, 50 cents; $5 00 per year. D. Appleton & Co., New York.

Garrett P. Serviss, the popular astronomer, has a most instructive and interesting article in the December issue, in which he discusses the probability of there being planets similar to our own earth, containing inhabitants, among the so-called fixed stars. J. Miller Barr writes of "Animated Photographs," in the cinematograph, biograph, etc.; "Our Liquor Laws as Seen by the Committee of Fifty" is by F. A. Fernald; "Pacific Coast Gulls" is the title of an illustrated paper by H. L. Graham. The most interesting and instructive to the Anglo-Saxon of Professor Ripley's papers on "Racial Geography" is "The British Isles," which appears in this issue.

THE ATLANTIC MONTHLY. Price, 35 cents; $4 00 per year. Houghton, Mifflin & Co., Boston.

The opening article in the December number is by Paul Leicester Ford, in which he discusses the "American Historical Novel." A paper from the pen of Henry G. Chapman is entitled "Belated Feudalism in America;" T. W. Higginson contributes the first of another series telling of "Literary London Twenty Years Ago." There are two short stories, "From a Mattress Grave," by I. Zangwill, and "The Greatest of These," by Henry B. Fuller. There is a second instalment of "The Coming Literary Revival," by J. S. Tunison. Other features of this issue are another instalment of the Unpublished Letters of Dean Swift; "State Universities and Church Colleges," by F. W. Kelsey; further instalments of F. Hopkinson Smith's serial "Caleb West;" "Penelope's Progress," by Kate Douglas Wiggin; a notable poem by Ellen Glasgow; and brief reviews of the year's most notable novels.

ARCHITECTURE AND BUILDING. Price, 10 cents; $4.00 per year. William T. Comstock, New York.

The contents of the November 13th issue are: "Rapid Transit Prospects;" "Editorial Notes and Comments;" "Myths, Superstitions, Romance and Humor of Architecture" (XX); "Montreal Power Works;" "Protection to the Palisades;" "Tesseræ —A Legend of Cologne;" "Correspondence;" "Modeling Clay;" "Personal;" "Current Notes;" "Climax Window Stop Adjuster."

For November 20th: "The End of the Harrisburg Competition;" "Union Labor on Public Work;" "Plaster Casts and How They are Made" (I); "Architectural Ruins in South Africa;" "Backing Thomas J. Brady for Building Commissioner;" "Electric Wiring;" "Personal;" "André's Prison Falls;" "Societies."

THE BADMINTON MAGAZINE. Price, 30 cents; $3.50 per year. Longmans, Green & Co., New York.

The November issue is before us, and opens with an article by G. H. Jalland entitled "The Handy Hall Fox." Clive Phillipps-Wolley writes of "The Stikine River: The Route to Klondyke;" Frederick Adye of "The Board of Green Cloth;" A. E. Gathorne-Hardy of "The Herds of Proteus;" P. F. Warner of "Cricket in the West Indies;" J. F. Sullivan of "On Real Walking;" "The Channel Row" is by Loftus Leigh Pemberton; "Reminiscences of a Pheasant," by John Scott-Montagu; "The Future of Rugby Football," by W. J. Lias; "The Old Coaching," by Alex. Innes Shand. The illustrations are by G. H. Jalland, N. J. Gibb, Lancelot Speed, J. F. Sullivan, A. Thorburn, H. M. Brock, and A. Pearse. There are the usual "Notes by 'Rapier.'"

AMERICAN KITCHEN MAGAZINE. Price, 10 cents; $1.00 per year. Home Science Publishing Co., Boston.

Ellen C. Elliott contributes to the November issue an article entitled "Simplification in the Home." Other articles are: "The Cranberry Season;" "The Domestic Reform League," by Mary M. Kehew; "Thanksgiving Day," by Alice E. Moore; "Glimpses of European Housekeeping," by Mary J. Lincoln; "Egg and Egg Desserts," by Helen M. Spring and Catherine J. Coolidge; "Celery;" "Lessons in Progressive Housework," by Emily Huntington; "Dollar Dinners for Four," by Anna Barrows; "Thanksgiving Menus;" and the usual departments.

THE AMERICAN MONTHLY REVIEW OF REVIEWS. Price, 25 cents; $2.50 per year. The Review of Reviews Co., New York.

The November issue outlines a vast project now made feasible by the inventions and devices of modern engineering—a great ship canal from the Great Lakes to the sea. Other papers of especial note are McEwen's character sketch of Henry George, especially important in view of his recent death; Stephen Bonsal's view of the situation in Spain; the Bayreuth Plays; "Personal Notes on Canvas;" and "Free Public Organ Recitals." It is a profusely illustrated number.

INTELLIGENCE. Price, 10 cents; $1.00 per year. The Metaphysical Publishing Company, New York.

Contents for November: "The Dogma of Faith," by Henry Frank; "The Psychology of Sleep," by Robert N. Reeves; "Scientific Reasons for Mental Healing," by Edwin D. Simpson; "Ideality in Culture," by J. B. Miller; "The Blindness of Sight," by Irene A. Safford; "Philosophy of the Divine Man" (IV), by Hudor Genone; "Inductive Astrology" (III), by John Hazelrigg; "The Basis of Immortality," by B. F. Underwood; "In the World of Thought," with editorial comment.

THE AMERICAN NATURALIST. Price, 35 cents; $4.00 per year. The Edwards & Docker Co., Philadelphia.

The October issue contains a most excellent biography from the pen of Professor Theodore Gill of Edward D. Cope; "New Observations on the Origin of the Galapagos, with Remarks on the Geological Age of the Pacific Ocean," is by G. Baur, Ph.D. There are the usual Editor's Table and General Notes on Botany, Zoology, Entomology, Psychology, and Scientific matters.

THE MIDLAND MONTHLY. Price, 15 cents; $1.50 per year. Johnson Brigham, Des Moines, Iowa.

The November number opens with a description of the home of Lady Somerset, the great leader of the W. C. T. U. in England. There is a third paper of the "Birds of the Midland Region," by D. L. Savage, and a number of short stories and miscellaneous papers, which make up a very creditable number.

COLUMBIA CALENDAR FOR 1898.—For the thirteenth year the Columbia Pad Calendar makes its appearance promptly on time for 1898, and while its general style is of the same familiar character, the many bright thoughts it contains, contributed by its friends in many parts of the country, as well as abroad, are new, and will be appreciated by all who take an interest in bicycling, healthful exercise, and good roads.

Therapeutic Brevities.

Disinfection of Sleeping Apartments.—Professor König, of Gottingen, relates that at one time, while he was practising medicine in Hanau, he discovered that his bedroom was inhabited by bugs. A friend assured him that he could easily get rid of the pests by fumigating the apartment with corrosive sublimate. This method was duly resorted to, and when the room was opened the dead bodies of various kinds of insects were seen strewn about the floor. As a result the same plan was tried in private houses after scarlet fever or measles, and in hospitals after erysipelas or pyæmia, with "most satisfactory results." Since adopting this method König has never seen a second case of a contagious disease which could be attributed to infection remaining in the room in which the patient had been confined. About two ounces of the corrosive sublimate is put on a plate over a chafing-dish, and the windows and doors of the room are then closed. At the expiration of three or four hours the windows are opened and the apartment is thoroughly aired—a very necessary operation. Persons entering the room are, with good reason, advised to take the precaution to hold a sponge or cloth over the mouth and nose in order not to inhale the vapor. On the following day the windows are again closed and some sulphur is burned in the room in order to neutralize (*sic*) any of the mercurial fumes which may linger about the furniture and other articles. After the room has been again aired and cleansed, it is said to be ready for occupation. Whether any cases of mercurial poisoning have occurred is not stated, but the risk of this would appear to be considerable.—*Pharmaceutical Journal and Transactions.*

Glaucoma.—Incipient glaucoma is frequently relieved by improved nutrition, with correction of any existing errors of refraction; it is sometimes relieved by the iodide of potassium, associated with the local use of eserine drops.

Mild and insidious cases of inflammatory glaucoma, between paroxysms, may exhibit but little tension; they require iridectomy for the drainage of the engorged vessels during the paroxysm, and constitutional treatment to aid in the elimination of accumulated débris in the tissues.

Inflammatory glaucoma, excluding the traumatic cases, should be accepted as a manifestation of many diatheses; and whilst iridectomy should constitute a necessary part of the treatment it should not be done to the exclusion of the all-important constitutional measures.

Since iridectomy can accomplish nothing beyond the establishment of drainage of the vessels of the iris and contiguous structures into the aqueous chamber, the amount of iris removed should be small; the operation should not be repeated, and in any case supplemental constitutional treatment is imperatively demanded.

In all cases of increased tension of the eye, with peripheral contraction of the field, engorgement of the retinal veins, with or without cupping of the disc, constitutional treatment is necessary, and, above all, strict attention to the general nutrition and habit of the patient.—Reynolds, in *Ophthalmic Record.*

Malarial Hematuria.—Give hyposulphite of sodium in one-drachm doses every two hours until the patient is thoroughly purged; then continue in smaller doses, until the system is saturated with it:

Give morphine and atropine, hypodermatically, sufficient to quiet stomach; also blister epigastrium if necessary:

Give an abundance of water to wash the coagula that must necessarily accumulate in the urinary tubules after a hæmorrhage; hot water or hot lemonade is frequently better borne by the stomach than cold; cupping over the loins is also to be recommended:

The diet should be mild. Fresh buttermilk is usually well borne by the stomach, and is also a mild diuretic, and I have come to rely on it as an article of diet in this as in many other diseases:

Keep the patient in a strictly recumbent posture.

I give hyposulphite of sodium in this affection for the following reasons: It is a stimulant to the hepatic secretion, causing in large doses abundant biliary secretion, and is also a valuable intestinal antiseptic. I believe free sulphurous acid is disengaged in the blood, and that this agent is an antizymotic to such an extent that it destroys the microorganism which is the real cause of the disease, and thus arrests the process of corpuscular disintegration.—Meek, in *New Orleans Medical and Surgical Journal.*

Cystitis in the Female.—The chief indications for treatment of cystitis in the female are:

To remove any discoverable source or sources of irritation which act through the medium of the urine,—this may be effected by a milk diet, and a discontinuance of the

use of acids, pepper, etc.; any mechanical source of vesical irritation should receive appropriate treatment:

The urine should be rendered bland by the use of a milk diet; the ingestion of considerable quantities of water, the administration of potassium citrate, if the urine be too acid, or of boric acid if it be alkaline:

Pelvic congestion should be relieved by hot vaginal douches, placing the patient in the knee-chest position; and the correction of constipation:

The inflamed cystic mucous membrane may be relieved by the administration of boric acid, salol, oil santal, copaiba, or creosote by mouth; or the use of injections of boric acid, carbolic acid, or nitrate of silver in suitable strengths:

The patient's general health should be improved by tonics, etc.:

Rest in bed, especially in all acute cases, is absolutely imperative.—HERSLER, in *University Medical Magazine.*

Lime-water a Disinfectant for Fabrics.—Beyer has tested different methods employed for the disinfection of bed linen and underclothing. The ordinary methods by boiling are not suited to these articles, as the presence of blood, pus and fæces causes an ineradicable stain if a high temperature is used. Soaking the garments in solutions of various soaps for one or two days failed in every instance to kill cholera, typhoid and pyogenic organisms, which were mixed with the fæces with which the garments were smeared. In some cases the germs were killed when the solution containing the linen was kept at 50° C. for a few hours. With lime-water the results were much better. Sample garments which were soaked in this solution for twenty-four hours were found to be sterilized. An equally good result was obtained in a hospital where about one-half a cubic meter of soiled linen was soaked in lime-water for forty-eight hours, or for twenty-four hours if the clothing was first rinsed with lime-water, and then placed in a fresh solution. The lime-water does not injure linen or cotton goods, but shrinks woolen to such an extent as to prevent its use.—*Fortschritte der Medicin.*

Lactic Acid and Uterine Cancer.—The treatment of uterine cancer by local application of lactic acid is again being discussed. This acid has a destructive action upon the neoplastic tissue, converting it into a black pulp, easily removed with a swab. Five or six applications have in some recorded instances been sufficient to destroy epitheliomata, which had recurred after operation, at the cicatrix within three weeks. The adjacent tissue must be covered with a protective plaster or ointment. The acid may be applied with a glass brush, or better as a cerate spread on cloth, with a piece of waxed paper over it and held in place with a bandage or tampon. A paste may be used composed of lactic and silicic acid. The dressing should remain in place twelve hours, and after removal the wound is to be carefully washed with water. After a lapse of twenty-four to forty-eight hours, water dressings being used meanwhile, a second application is made, this method being continued until the pathological tissue is destroyed. The pain, while severe, is only of a few hours' duration. The resultant cicatrix is soft and pliable.—*American Journal of Surgery and Gynæcology.*

Diabetes and Uranium Nitrate.—Doctor Ebenezer Duncan, of Glasgow, in a paper on this subject, said that ten to fifteen grains had been given by Doctor West in the London Hospital with rather favorable results. Very little has been done in other hospitals. In dogs, cats, rabbits, uranium nitrate produces a nephritis. Doses up to fifteen or twenty grains in the human patient produce no bad results and may be used for two or three months.

Doctor Tyson said it was twenty years since he had used the drug until last fall, when he tried it again in much larger doses; two grains three times a day being the old dose. This last time he gave five grains thrice daily. In his cases diarrhœa often occurred and his results had not been good.

Doctor Saundby said that in his experience uranium was not a specific, but it did good in some cases, although he had not given such large doses as fifteen grains, but had given ten grains thrice daily. Doctor Duncan, in reply, said he did not consider it a specific; he simply had stated what occurred when the drug was given in his cases.—*Medical Record.*

Hæmorrhage in Hæmophilia.—Bienwald employed a very original method in the case of a child aged two years, the subject of hæmophilia. Having failed to arrest the hæmorrhage from a small wound on the face by the application of perchloride of iron, he obtained some blood by aspiration from a healthy subject and deposited it on the wound. In a few minutes it coagulated, and the hæmorrhage at once ceased. His explanation is that it supplies the ferment

necessary for thrombosis in the small vessels. Whether this is correct or not is impossible to say in the absence of definite knowledge of the pathology of hæmophilia. As affording his explanation some support we may mention the success obtained by Doctor Wright in his experiments with a solution of fibrin ferment and chloride of calcium as a styptic.—*The Lancet* (London).

Dandruff.—

℞ Acetic acid, 1 ounce.
Tincture capsicum, 1 ounce.
Water, 3 ounces.

Use once a day.

Forty years ago an old lady give me the prescription in another form, viz.:

℞ Good white wine vinegar, 2 ounces.
Strong red pepper tea, 2 ounces.

Use once daily.

Use a fine-tooth comb to remove the dry scales, and wash the head every third day, using a rag or sponge to saturate the scalp. I have used the first recipe for a long time, and find it a good thing.—BRODNAX, in *Medical Summary.*

Irrigation of Pleural Cavity.—When irrigation of the pleural cavity is difficult, after operation for empyema, it is well to put the patient in a warm bath of boiled water and use the process of breathing as a means of irrigation. It is evident that if the fistulous opening is below the level of the fluid, if the patient inspires and expires freely there will be a current of water into and out of the pleural cavity much stronger than can be obtained by simple irrigation. Lumps of coagulated blood and fibrinated masses may be washed out by this means which could not be obtained by simple lavage. The baths must be given in boiled water cooled to the temperature of the body, and last ten or fifteen minutes. The general condition of the patient will also be found to be much improved by this treatment.—*Medical Times.*

Bronchial Catarrh.—I could not forego *Hydrastis canadensis* in the treatment of bronchial catarrh, acute as well as chronic, for it enables me to dispense with the use of opium and its derivatives almost entirely in the treatment of tuberculous subjects.

I have employed the form of fluid extract almost exclusively. To adults I give twenty, twenty-five, or thirty drops four times a day, in a little sweetened water; large doses may be used. I have not found the alkaloid so trustworthy as the fluid extract. I have never observed dangerous or unpleasant effects from the doses of the fluid extract, but very large doses may give rise to angina pectoris in the subjects of heart disease and in very debilitated persons.—SAENGER, in *Centralblatt fuer Innere Medicin.*

Harmless Catarrh Powder.—A catarrh cure to be put up in two-drachm vials will easily replace largely advertised preparations of a similar character. The best argument in its favor with the people is the absence of any poisonous ingredient like cocaine, which forms so large a part of the advertised preparations. I sell mine for 25 cents per bottle, which is 25 cents cheaper than the advertised preparations. As to its efficacy, my sales warrant me in pronouncing it the equal, if not the superior, of others of its kind.

℞ Powdered myrrh,
Powdered bloodroot,
Powdered acacia, equal parts.
M.

—HELMUTH, in *American Druggist.*

Creosote in Gastric Affections.—The following gives excellent results in cases of infantile gastro-enteritis and various dyspeptic conditions:

℞ Beechwood creosote, 3 minims.
Alcohol, 15 minims.
Gum arabic, powdered, 150 grains.
Syrup, 480 minims.
Orange-flower water, 150 minims.
Water, to make 7 ounces.

A teaspoonful for children, or tablespoonful for adults, immediately before each meal.

Creosote in small doses exerts a particularly favorable action, and under its influence gastric affections and diarrhœa, when due to gastric derangement, rapidly recede.—*American Medico-Surgical Bulletin.*

Spasmodic Croup.—

℞ Tincture tolu, 3 ounces.
Syrup squills, 4 drachms.
Tincture opium, camphorated, 3 drachms.
Glycerin, 12 drachms.
Water, sufficient to make 6 ounces.

Half-teaspoonful to be given every three hours during the day, and every four hours during the night.

Doctor Stimpson recommends this treatment during the intervals, the spasm to be relieved by spraying the mucous membrane of the throat with a two-per-cent. solution of cocaine, and enveloping the throat in a cloth wet with a solution of a tablespoonful of ground mustard to a quart of hot water.—*Exchange.*

Palatable Castor Oil.—A palatable emulsion may be prepared as follows:

℞ Powdered gum arabic, 4 drachms.
Castor oil, 1 ounce.
Saccharine elixir, 10 minims.
Oil bitter almonds, 1 minim.
Oil cloves, 2 minims.
Distilled water, sufficient to make 2 ounces.

Dissolve the gum in sufficient water and add the oil gradually; lastly add the flavoring.

Glycosin, saccharin and dulcin are all soluble to some extent in castor oil, and are serviceable for imparting a sweet and pleasant flavor, masking to some extent the disagreeable taste of the oil.—*Hospital Gazette.*

Orchitis, Ovaritis, and Cystitis. — Pulsatilla is of value in orchitis, whether idiopathic, traumatic, specific, or metastatic. Give two drops of the tincture every two hours. I have found the best results by giving one-drop doses every fifteen minutes for one or two hours, then every half hour for one or two hours longer, then every hour until a cure is effected. This is equally valuable in ovaritis. I have had considerable experience leading me to the belief that it is of especial value also in inflammatory affections of the kiddeys, bladder and urethra of both sexes.—TUCKER, in *Medical Standard.*

New Test for Albumen.—Put into a small tube of water an amount of resorcin equal to one-third of the water in the tube. When dissolved the urine is allowed to flow gently through the tube wall, down to the solution, when a ring of albumen will be formed if such is present. Though some other urinary constituents give the same ring, yet this disappears on boiling, while an albuminous ring persists. The test is very delicate and shows that it reveals albumen where nitric acid has failed.—CARRES, in the *Journal des Sciences Médicales de Lille.*

Sulphide of Calcium.—I have used the following for some years with very satisfactory results in cases of eruptions on the body and all manner of breaking out tending to inflammation and suppuration of the parts:

℞ Sulphide calcium, ½ grain.
Rochelle salts, 10 to 15 grains.
Epsom salts, 10 to 15 grains.
Water, 2 drachms.

Give three times a day after meals. To children give half the quantity.

If the dose physics, give less.—I. C. HARING.

Potassium Iodide and Lactation.—I find the coming of milk after labor is not delayed, that the course of the lactation is not interfered with, and that the infant does not suffer, as is shown by the increase in weight during the administration of the iodide. There is no reason, therefore, to fear that the administration of iodide of potassium to a syphilitic mother will interfere in any way with her functions as the nurse of her own child. The fears that it will do so are imaginary.—FIEUX, in *British Medical Journal.*

Ivy Poisoning. — Keep the affected parts well wetted with freshly made lime-water. Take a teaspoonful four times daily of:

℞ Fluid extract couch-grass, 4 drachms.
Sweet spirit of nitre, 1 ounce.
Syrup of lemon, 1 ounce.

M.

—BLACKWOOD, in *Medical World.*

Emergency Tracheotomy.—Waste no time in giving an anæsthetic. In diphtheria there is already a blunting of the sensibilities. In cyanosis and coldness of the skin the sensitiveness to pain is greatly diminished. In burns of the pharynx and larynx be ready to operate at the first evidence of sudden grave dyspnœa.—*Nashville Medical and Surgical Journal.*

Chronic Cystitis.—

℞ Fluid extract golden-seal, 2 drachms.
Tincture gentian comp., 4 drachms.
Tincture staphisagria, 1 drachm.
Tincture cannabis indica, 1 drachm.
Syrup bitter orange peel, 4 ounces.

A teaspoonful three times daily.

—*Medical Fortnightly.*

Salicyl-Creosote Paste. — The following is the formula for Unna's new paste for the treatment of lupus:

℞ Salicylic acid, crystal, 40 parts.
Creosote, 80 parts.
Simple cerate, 60 parts.
White wax, 20 parts.

Melt together.

Blood-stains. — The statement has been lately published that a warm solution of tartaric acid is most efficient in removing blood-stains from towels, aprons, etc. Acetic acid has long been in use for this purpose, and either acid will probably answer equally well.—*Medical Record.*

Medical Progress.

DIGESTIVE FERMENTS.—For some time I have been of the opinion that among other agents the digestive ferments were used more injudiciously than any remedy in the materia medica, my experience being that the faulty work of the alimentary canal was rather due to lack of acid and carbonate of sodium, borne out by the relief obtained through the use of these. Because of this the ferments of various manufacturers have been often decried by the practitioner, when the fault lay in his own diagnosis. In the past year much light has been thrown upon the physiological action of enzymes—so much, in fact, that it would be beyond the limit assigned to this sketch to enter into detail; but it is desired to mention one fact of vast importance in every practise. It has been until recently taught that as soon as food was introduced into the mouth the flow of gastric juice was excited, the stomach thereby becoming acid in reaction. Because of this salivary digestion ceased when food was swallowed, ptyalin, acting only in neutral or alkaline media, being destroyed. Also, because of this, it was almost a waste of time and material to administer pancreatic enzymes, which act too in alkaline media, and which are obliged to run the acid gauntlet of the stomach.

It is now known, however, that the acid gastric juice is not secreted for some appreciable time after food has passed into the stomach; that ptyalin continues to act after it has been swallowed, further changing the intermediate products of salivary digestion into maltose; and that for this reason we may be reasonably certain of obtaining desired results when the pancreatic enzymes are given by the mouth.

But, as was said before, disappointments are likely to follow because we do not discriminate between lack of acid and lack of pepsin; between lack of carbonate of sodium and lack of trypsin or amylopsin.

The test-tube is by no means a criterion of what occurs in the economy; but I should like to relate an impressive fact as to the stability of the various digestive ferments on the market; and before going farther let me state that I do not desire to make any invidious comparisons, or champion a particular manufacturer.

In making preparation for demonstrating the action of the digestive ferments before the first-year class of the University College of Medicine in physiology, I could find but three preparations of the necessary agent at hand. Two of these were not less than three years old, and one, that of Parke, Davis & Co.'s lactated pepsin, had been unstoppered for nearly that length of time. The second preparation of pepsin had never been opened, and retained, to the naked eye, the characteristics it had when first received. The third specimen was a liquid preparation that had been left at the office but a few days previously, and therefore to be supposed perfectly fresh.

All were subjected to the same test. Three beakers were taken, and in each was placed a piece of coagulated egg-albumen, weighing about two drachms. In beaker A was poured a solution of lactated pepsin; in beaker B a solution of the second preparation, with two-per-cent. solution of hydrochloric acid; in beaker C, the third, the liquid preparation.

A word of explanation is now in order. It is claimed by the manufacturers that lactated pepsin contains all the ingredients necessary for gastric digestion, and to make things equal the hydrochloric acid was added to the second preparation so as to complete the artificial gastric juice. For the third preparation the manufacturers claim all the ingredients necessary.

To resume: The beakers and contents were placed in a water-bath at about 100° F. and kept there for three hours. In less than an hour disintegration began in A, no change occurring in B or C. In two hours the contents of A were small masses of egg-albumen floating in solution; no change in B or C. In three hours the contents of A were in a flocculent state, and still there was no change in B or C. Further experiments showed that casein would be precipitated almost immediately by the first preparation, and if allowed to act further would continue the digestion, while the other two were inert.

At my request Messrs. Parke, Davis & Co. kindly forwarded preparations of taka-diastase and pancreatic extract, for class demonstrations. A grain or two of the diastase introduced into a test-tube containing boiled starch liquefied it almost immediately, and after placing the tube in a water-bath at 100° for half an hour, glucose was detected both by Fehling's and the picric acid tests, which showed remarkably rapid action.

For demonstrating the action of the pancreatic extract on albumen, three beakers were taken and labeled. In A was placed a piece of coagulated egg-albumen, weighing about two drachms, with a solution of the extract; in B, a like weight with an identical solution, to which was added hydrochloric acid; in C, the same weight of albumen and quantity of solution, to which, however, was

added carbonate of sodium. All were placed in the water-bath at 100° F. In two hours the eroding action of the trypsin could be plainly seen in C, but of course none was visible in A or B. The biuret test showed the presence of peptones in C and absence of them in A and B.

Emulsification of oil was tried, and although partially successful, the lack of time and suitable conditions prevented satisfactory results.

And now, in closing, permit me to say it is necessary a clear diagnosis be made before advising the digestive ferments; be sure, too, that the form of indigestion present is firmly fixed, and last of all distinguish between the albuminous, amylaceous and fatty forms of intestinal indigestion.

The method of prescribing for indigestion is one of the double-barreled handed down by our medical forefathers, who scarcely comprehended what it was. In the broad glare that latter-day investigations have thrown upon the subject we have no excuse for administering the *olla podrida* that, with them, was science.—Mark W. Peyser, before the Richmond Academy of Medicine.

Anchoring the Kidney.—Hydronephrosis and pyonephrosis are of frequent occurrence, due often to closure of the ureters from a calculus or other obstruction which prevents the flow of urine. Hydronephrosis may exist for from ten to fifteen days without breaking down the substance of the kidney. A kidney absent from its natural position may be replaced sometimes by taxis, but it is liable to return to its former position. When this does occur we are justified in doing a radical operation. It is futile to attempt to replace a kidney in its natural position and hold it there by means of a tight bandage. The bandage could not be made tight enough to effect this object without interfering with the circulation; one could get only general and not local pressure by this means. In my method of anchoring a floating kidney I use the abdominal incision over the normal position of the kidney. The incision is made just large enough to introduce the fingers into the cavity and push the intestines to one side, so as to give a clear field for observation. A long, curved needle with a strong handle, and armed with one thread of silk, kangaroo tendon, or other material, is passed through the upper border of the kidney between the eleventh and twelfth ribs and on through the muscular wall out to the back. The needle is unthreaded and withdrawn. The other end is threaded and introduced at a short distance from the point traversed by the first; the threads are then tied over a piece of gauze in a manner similar to the fastening of a staple stitch. This is a radical rather than a palliative operation. The sutures are left in for from ten to fourteen days. In two instances it was my good fortune to be called upon to operate for ovarian trouble in patients on whom I had once performed this operation. One of these operations was performed at an interval of six months after the first operation, and the other at an interval of one and a half years. In both instances I found the kidney in the normal position, the same as the one on the other side. I I think there are objections to the lumbar incision; one does not always find the kidney where it ought to be and is sometimes compelled to hunt for it. By the abdominal route a greater field for observation is obtained.—R. Harvey Reed.

The Evil Effects of Too Much Education in the Young.—Complaints are at times made in this country that the health, and particularly the eyesight, of children is permanently injured by a too close application to the desk. However, the lot of children at school in America is a light and easy one, when compared to that of the juveniles in Germany. There, indeed, if report does not speak falsely, the brain work that quite a young child is expected to get through in a day is sufficient to cause much alarm. In Germany many subjects are taught in the schools which in other countries are included in the University course. German parents are now awakening to the dangers of this cramming system, and are becoming day by day more nervous as to the ultimate result on the physique and stamina of the rising generation. Professor Eulenburg some time ago, in the *Deutsche Medicinische Wochenschrift*, criticizes the hours of work of a celebrated Berlin "gymnasium," where the sixth class has in the week thirty-three lessons. He pointed out that according to Griesbach the brain of an overtaxed child requires several hours of rest before regaining its normal faculties; and Burgerstein says that boys of twelve years of age require as a rule an interval of several minutes after forty minutes devoted to study. Although there is no country in the world where the young are subjected to such brain pressure in the schools as Germany, yet the trend of modern education, both in America and in England, points the same way. The worst feature of the case is that young chil-

dren are not only compelled to learn an enormous quantity of subjects, but also so many useless ones. Elementary schools should teach nothing but elementary subjects. It certainly seems that the results of modern education are in no way commensurate with the trouble and expense incurred. —*Medical Review of Reviews.*

Syphilis and Gonorrhœa.—Syphilis has no relation whatever to either gonorrhœa or chancroid, notwithstanding the same individual may be afflicted with all three disorders simultaneously. When syphilis is contracted from the absorption of the virus of the chancre, the disease when not interrupted by treatment pursues a straight or well defined course, which has been arbitrarily divided into the primary, secondary, and tertiary stages. The primary stage begins with the advent of the chancre, and continues to its termination, and about six weeks longer, thus making a period of about three months. Few, if any, medicines have an influence of a beneficial nature on chancre, since it will heal in about the same lapse of time whether treated or not. However, we usually apply to the punched-out sore a stimulating ointment. In the primary stage it is known that the syphilitic virus has been absorbed, and that nothing indicates systemic invasion; but it is also well known what is to follow, therefore that is the time to begin the treatment of the secondary stage, which begins after the lapse of about three months from the appearance of the chancre, and which will run a course of about one year, unless modified by treatment. For about six weeks after the chancre has healed the subject will consider himself well, and will therefore abandon treatment of all kinds; but six weeks later will develop an aching of the bones; and later still will succeed skin eruption, sore throat, falling of the hair, and systemic weakness. In secondary syphilis, while many local remedies may be employed advantageously, which will ameliorate the symptoms, it is the constitutional treatment which requires the surgeon's consideration more especially.—John Cooper, in *American Medical Journal.*

Priapism.—Priapism in infants and children is induced by reflex action in cases of long, tight, adherent prepuce, of stone in the bladder or prostatic urethra, and of worms in the rectum:

In adult subjects, symptomatic of stone in the bladder, stone in the prostatic urethra, stricture, cystitis, and observed during retention; in these cases the uneasy or painful sensation is felt in the glans penis, while the body of the organ usually is only moderately congested and sometimes curved downward or laterally.—This condition disappears upon the removal of the cause:

Priapism symptomatic of gonorrhœa, with perhaps involvement of the corpus spongiosum and downward curvature.—This condition is painful and transitory, and may occur several times during the night; in cases of downward curvature of the penis due to inflammatory engorgement of the corpus spongiosum and spasm of the musculature of the urethra the term *chordee* is applied:

Priapism due to the ingestion of cantharides, which is a form that is seldom or never seen now, since this drug is so rarely used in medicine:

Essential priapism.—This form may be divided into four varieties, viz.: Priapism caused by injury to the spinal cord (either high up or low down) and by blows or violence inflicted upon the perineum; priapism which is a symptom of cerebral or descending spinal-cord disease; priapism which occurs after alcoholic and sexual excesses; priapism which comes on a person in ill health in whom it is difficult to obtain data as to local injury and causation, and in which cases there is now a tendency to look upon leukemia as the ætiological factor.—W. R. Taylor.

Aural Diphtheria.—It is not easy to find many references to this subject in recent publications. When, however, an invasion of the ear has occurred, it has usually been described as gaining access by way of the Eustachian tube. The investigations of Lommel contradict this assumption. His material consisted of ninety-six cases of true Klebs-Loeffler diphtheria, verified during life, or *post mortem*, by bacteriological and microscopical examination, and occurring during an epidemic at Basle. He asserts that the middle ear is very commonly affected in diphtheria, but the onset of the invasion is free from pronounced symptoms, and is mild in character throughout. The membrana tympani is not much altered—in but two of the cases was it perforated—hence the complication is not usually diagnosed during life. Yet in more than half the cases examined *post mortem* the tympanic cavity contained pus, and in two there was present a true diphtheritic membrane—white, fatty, and adherent to the subjacent surface. In twenty-one cases, eighty-four per cent. of the whole,

the interior mucous lining of the cartilaginous Eustachian tube was normal; in four it was inflamed; but in one instance in which a diphtheritic exudation was found on the Eustachian cushion the middle ear showed nothing. Participation in the disease by the tube was rare, in fact, and if inflammation existed at one end, the middle portion was free. Hence Lommel concludes that middle-ear disease in these cases is not an extension along the Eustachian tube, but an affection of the mucous cavities of the ear complicating diphtheria—one of the symptoms of a *general infection*—similar to what Bezold has found to occur in measles.—*The Practitioner.*

Cancer of Pylorus.—Even though removed it returns quickly, and always kills:

Pylorectomy is attended by a high mortality and is not a justifiable surgical procedure in advanced carcinoma of the pylorus:

Gastrectasis due to a malignant closure of the pylorus is best treated by a gastro-jejunostomy:

The operation as advised by Von Hacker best meets the indications:

It is not necessary to twist the bowel, in making the anastomosis, to prevent the bile from entering the stomach:

The anastomotic opening in the stomach should be at the most dependent point of the dilated organ:

The operation is attended by a low mortality:

In all cases in which marked dilatation of the stomach exists, accompanied by emaciation, pain, and invalidity, the operation of gastro-jejunostomy should be performed:

The relief of pain, due to the effort of the stomach to relieve itself, follows this procedure at once. The patient gains rapidly in weight, and if non-malignant disease be present his former good health is restored.—*International Journal of Surgery.*

Nasal Micro-Organisms.—In all bacterioscopic investigations of the nasal fossæ, in all researches as to the action of nasal mucus, etc., a clear distinction must be made between the vestibule of the nose and the proper mucous cavity.—The former is lined with skin, and is not part of the nose cavity proper, but only leads to it:

Contamination with the lining of the vestibule is difficult to avoid, even when this source of error has been realized:

In the dust and crusts of mucus and débris deposited among the vibrissæ of healthy subjects, micro-organisms are never absent, and are usually abundant:

On the Schneiderian membrane the reverse is the case; under normal conditions micro organisms are never plentiful here, are rarely even numerous, and in more than eighty per cent. of cases no organisms whatever are found and the mucus is completely sterile:

The occurrence of pathogenic organisms must be so infrequent that their presence on the Schneiderian membrane can be regarded only as quite exceptional.—*Archives of Otology.*

Surgery of the Lung.—This, like that of the viscera, has of late made much progress, thanks to the perfection of anatomical knowledge and to the improvement in operative procedures for the arrest of hæmorrhage. Equally favorably conditions for surgical intervention do not occur in all affections of the lungs. Wounds caused by contusing bodies, by stabbing and cutting instruments, and by gunshot projectiles of small and medium caliber, usually heal well without causing suppuration or troublesome reaction. The danger which results from such injuries is due, not to the injury of the lung structure itself, but rather to the multiplicity and extent of the wounds and to the lesions of important neighboring parts. The surgeon should not intervene too hastily in these injuries.—Péan.

Early Diagnosis of Pregnancy.—The change of the body of the uterus from the shape of a pear flattened in its antero-posterior diameter to a globular form:

The cervix becomes wider, shorter, and much softer in the pregnant than in the non-pregnant state:

The softening of the lower uterine segment.

When all three of the above conditions are present, the patient is almost certainly pregnant.—Wells.

Appendicitis.—A careful study of the development of this disease has lately been made by Doctor Robt. Abbe. From this investigation he concludes that there are usually five stages: Catarrhal inflammation of the lining mucous membrane: Irregular narrowing of the caliber, with hypertrophy of the mucous and muscular coats: Strictures: Imprisoned food, desquamated epithelium and pus, forming concretions: Obstruction at the stricture, distention, perforation, abscess.

The Medical Age.

Vol. XV. DETROIT, DECEMBER 10th, 1897. No. 23.

Original Articles.

EXAMINATION OF BLOOD AS AN AID TO DIAGNOSIS.

BY JAMES S. REEVE, M.D.

New resources in diagnosis and prognosis are always welcome. A fresh field has lately been opened to us which is already of great importance, and whose usefulness is daily increasing. As urinalysis has given exact methods in dealing with kidney diseases, and immensely widened the scope of knowledge; as the use of the thermometer has become an indispensable aid in febrile affections, so is found in examination of the blood clinical evidence which substitutes certainty for guesswork, and enables us to follow the course of many diseases with an accuracy and satisfaction equaled in few departments of medicine.

More than thirty years ago Virchow said: "I predict for the white blood-cell a place in pathology." To-day his prophecy stands fulfilled. Modern methods of preparing and staining specimens of blood have made its examination so simple and so quickly accomplished that the general practitioner can gather, even from its hurried application, information of immense value.

The blood, as we all know, is composed of a fluid element, and two kinds of cells—red and white—besides some small bodies called plaques. When we examine a drop of fresh blood under the microscope we see at first nothing but the red cells, which are so numerous that they seem to occupy the whole field of observation. But when we study the specimen for a time, we discover here and there a white cell, or leucocyte—one to every six or seven hundred red. The leucocytes are not easily seen in fresh blood, and do not appear to differ much from each other.

Now, if we prepare and stain a drop of blood, by certain simple and easy methods to be described later, we have a much more interesting and instructive picture. We see the red cells, as before, but much more distinctly, on account of the stain which they take up. We see that in healthy blood they are uniform in size and quite round, and that they have no nucleus. The center of the cell stains more faintly than the periphery, owing to the disposition of the hæmoglobin, which is the element in the red cell which takes up the stain, and we shall see later that the intensity of the stain is a measure of the amount of hæmoglobin present.

Normal red cells are called erythrocytes. Deviations from the normal, in size, shape, etc., have been given appropriate names, as will be mentioned presently.

When we come to examine the white cells in a stained preparation we find that they show among themselves variation in size, shape, nuclei, and other particulars, which have vital significance.

We find in healthy blood the following varieties of white cells:

1. *Small mononuclear* cells, about as large as red cells, with one distinct nucleus. These are young leucocytes, as they appear when first made.

2. *Large mononuclear* cells, similar to the small, but older, larger, and having a single, large, faintly staining nucleus.

3. *Transitional* cells, having a single nucleus, which is horseshoe-shaped, or very irregular.

4. *Polynuclear* cells, which make up more than half of all the white cells, and which are the adult form of leucocyte. They have several nuclei, which stain distinctly.

5. The so-called *Eosinophil* cells, which have a great avidity for the eosin stain, which brings out a mass of bright granules, giving the cell a characteristic appearance.

These five forms are constant in normal blood. The polynuclear make up over sixty-five per cent. of the total number, the large and small mononuclear over thirty per cent., while the transitional and eosin cells comprise one or two per cent. each.

The technique of preparing blood for examination is very simple. A finger or the lobe of an ear is cleaned with a little ether, and a slight needle-prick is made, sufficient to obtain a very small drop of blood. Into this drop a clean cover-glass is pressed, and then laid on a second cover-glass. The drop spreads evenly out between the two covers, which are then gently drawn apart by a sliding motion. After drying in the air they are to be heated to about 120° C., in a small copper box, provided with a thermometer. If this is not at hand a substitute has been suggested by Dr. Cabot.* A strip of copper about a foot long and three inches wide is supported at each end, and heated by an alcohol flame. After a few moments any given point on this strip assumes a certain degree of heat, and maintains it steadily. Now find the point where water boils, by dropping water along the surface of the strip until the desired spot is reached. Here lay the cover-glass face down on the copper plate and let it remain fifteen minutes.

After fixing the specimen in the manner described, it is to be stained. There are two favorite methods:

1. The eosin-hematoxylin stain. A few drops of a one-per-cent. solution of eosin in alcohol are dropped on the cover and allowed to remain two or three minutes. Then a few drops of a solution of hematoxylin, prepared by Delafield's formula,† is applied in a similar way. The cover-glass is now to be washed and dried, and after mounting in Canada balsam or glycerin is ready for examination.

2. The other stain in common use is the so-called "Ehrlich-Biondi" mixture* of three colors in one solution. This stain brings out a number of different kinds of granules in the cell bodies. Some of these granules are stained only by acid stains, some by basic, and some by neutral. This triple stain will differentiate all the various kinds of granules. Ehrlich† has classified the white blood-cells according to the granules they contain, but for clinical purposes the classification I have given, depending on the life history of the cell, is to be preferred.

When we look at a specimen stained with eosin-hematoxylin we find the erythrocytes stained by the eosin a bright red color. The hæmoglobin of the red cells is acidophile, and shows its affinity for the eosin, which is an acid stain. The more hæmoglobin, the brighter the stain. In anæmia only a faint ring of color is to be seen. After some practise the extent of the anæmia can be readily estimated from the intensity of the stain, and progress under treatment can be noted from time to time as satisfactorily as by the use of expensive instruments.

The white cells are beautifully differentiated from the red by this stain. All nuclei are basophile, and are therefore stained blue by the hematoxylin, which is a basic stain. The bodies of the leucocytes are stained a faint pink by the eosin.

Specimens of blood can be obtained at the bedside, and carried home in a pill-box to be fixed and stained at leisure. The whole process only requires a few minutes, and if the specimen is mounted in balsam it can be preserved for future reference.

Passing now to the significance of the white cell, and the inferences to be drawn from abnormalities, we find that the leucocytes may vary in number, and in the proportion the different kinds bear to each other.

There are normally eight or ten thousand

---

*"Clinical Examination of the Blood," p. 33.

†To 100 Cc. of a saturated solution of ammonia alum add one gramme of hematoxylin crystals, dissolved in 6 Cc. of ninety-five-per-cent. alcohol. This solution is exposed to the light for four days. Then 25 Cc. each of glycerin and wood naphtha are added. This mixture is allowed to stand for two days, and is then filtered. It must be diluted before using.

*Saturated watery solution of Orange G., 130 Cc.; saturated watery solution of acid fuchsin, 100 Cc.; saturated watery solution of methyl green, 125 Cc.; glycerin, 100 Cc.; absolute alcohol, 200 Cc.; distilled water, 300 Cc. This stain can be obtained from large instrument houses in Chicago in powdered form and made into solution for use as required.

†"Grundriss einer klinischen Pathologie den Blutes." R. R. v. Limbeck, p. 132.

white cells in a cubic millimeter of blood, which quantity has about five million red cells. If the number of white cells is greatly increased, we have a condition known as *leucocytosis.* Such an increase is usually of the polynuclear variety and is found in two main general conditions, inflammatory and cachectic.

1. *Inflammatory.*—In a majority of acute febrile diseases, especially those of an infectious type, there is a marked increase in the number of the white cells. This is particularly true of septic conditions, and leucocytosis is an invariable accompaniment of purulent exudations. This fact gives us a valuable diagnostic weapon. Thus, when there is doubt as to the diagnosis between, for instance, fæcal impaction and appendicitis, the absence of leucocytosis would practically exclude purulent appendicitis, while its presence, especially in quantity, would establish the probability of appendicitis or some similar process. Moreover, the extent of the leucocytosis would roughly indicate the severity of the infection. This is but an illustration, and no reflection is needed to suggest many cases where new aid in settling the question—is there local inflammation or septic infection?—will prove of great value.

This increase in the number of the white cells is not due simply to pyrexia, nor are all infectious processes associated with leucocytosis. This fact often proves of still further aid in diagnosis. For instance, leucocytosis accompanies scarlet fever, diphtheria, erysipelas, pneumonia, and all abscess-forming affections. It does *not* accompany typhoid fever, malaria, or measles.

According to Ehrlich* inflammatory leucocytosis is accompanied by an actual *decrease* in the number of the eosin cells. In general, it may be said that the more grave the affection the greater the decrease; and the reappearance of the eosin cell may be taken as a favorable symptom, often preceding the evidence obtainable from other sources.

Cabot† has pointed out the important fact that in very severe septic cases, where the resisting power of the patient is almost *nil*, there is *no increase* in the white cells. Leucocytosis, when present, serves as a rough test for the extent of the disease. It indicates also the *resisting* power of the patient, and, in a sense, is a good sign. But when the process is extremely severe the patient is overwhelmed by it, as it were, and his system fails to respond by throwing into the blood-stream an excess of leucocytes. Thus, if we had a case of some severe septic process, accompanied by leucocytosis, and the latter should disappear, the prognosis would be extremely grave.

2. *Cachectic Leucocytosis.*—Here also we have an increase of the polynuclear leucocytes, but not to so marked a degree as in inflammatory leucocytosis. Relatively there seems to be a greater increase than actually exists, because the red cells are decreased in cachexia, so that the white cells seem more numerous by comparison.

There is also diminution in the quantity of hæmoglobin. The red cells show large central spaces, and stain faintly. Much aid in diagnosis can be obtained from the leucocytosis of cachexia, because many cases clinically resemble some forms of anæmia, which latter, however, have not so pronounced an increase of the white cells.

Turning now to a few diseases in which examination of the blood is a matter of importance, I wish to speak briefly of pneumonia, typhoid fever, anæmia, and leukæmia.

Pneumonia.—Shortly after the initial chill the number of white cells begins to increase, and a polynuclear leucocytosis persists throughout the disease. The leucocytosis is abundant in the vast majority of cases, and may be regarded as a favorable condition. The leucocytes seem to have a special phagocytic action, carrying off the toxin of the disease, and thus favoring recovery. Cabot* has divided the degree of leucocytosis into three groups, as follows:

1. Mild infection with vigorous reaction; slight increase of leucocytes.

2. Severe or moderate infection with vigorous reaction; marked increase.

---

*"Methodologische Beiträge zur Physiologie und Pathologie der verschiedenen Formen der Leukocyten." *Zeitschriften für Klin. Med.*, band 1, heft 3.

† *Op. cit.*, p. 9.

* *Op. cit.*, p. 161.

3. Severe infection without corresponding reaction; *no leucocytosis.*

Cases in Class 1 are infrequent and trivial. Those in Class 2 are numerous, and may or may not recover. Those in Class 3, where the infection is evidently severe, and yet the white cells are not increased, almost invariably die. The disease overwhelms the patient, and he has not sufficient reactive power to furnish an opposing leucocytosis. Out of 366 recorded cases of pneumonia where the blood-count was made, 339 had leucocytosis. In only twenty-seven was it absent, and of these twenty-six died.

Besides the prognostic value thus seen, attention should be called to the diagnostic value of blood examination. So-called central pneumonia may be verified in the absence of physical signs. Moreover, leucocytosis excludes malaria, typhoid fever, and uncomplicated grippe.

In pneumonia the eosinophil cells are practically absent until just before the crisis; when found, the crisis may with confidence be predicted. Conversely, an apparent crisis, unaccompanied by return of the eosin cells, and by return of the chlorides in the urine, is a pseudo-crisis, and the disease may be expected to continue.

Attention should also be called to the absence of blood-plaques in pneumonia, and to the excess of fibrin. This latter appears on a slide, when fresh blood is examined, as an abundant network spread out among the blood-cells, and presenting a highly characteristic appearance.

Typhoid Fever.—Contrary to the general rule that there is leucocytosis in infectious diseases, we have here no increase in the number of the white cells. In the first week of typhoid there is rather a decrease of leucocytes and a fibrin net does not form as in pneumonia. Moreover, the adult forms, or polynuclear cells, fall below their normal proportion, and the young forms, or small mononuclear, rise. Thus we have a sharp distinction between the blood-picture in pneumonia and typhoid. We can further distinguish between typhoid and certain inflammatory or infectious diseases, which follow the rule laid down regarding leucocytosis, typhoid being, as already stated, an exception.

Thus, abscess of the liver, appendicitis, pyæmic and septicæmic processes, which often closely simulate typhoid, can be excluded if there is no leucocytosis.

Further, if the diagnosis of typhoid is already well established, the blood examination may be important, since complications may show themselves in the leucocytosis they excite. Conversely, local symptoms of a complicating nature *not* accompanied by increase of leucocytes may be regarded as not serious, and need not cause us alarm.

In the fourth or fifth week, if leucocytosis develops, and we are sure that we can exclude all complications, we may with strong probability suspect unusual ulceration of Peyer's patches, and be on the lookout for perforation.

But it is in the field of the essential blood diseases that we find the most interesting and characteristic blood-picture.

Mild forms of *primary anæmia* show:

1. Decrease in the number of red cells.

2. Slight decrease in the quantity of hæmoglobin present. This decrease is less than the pallor of the patient would lead us to suppose.

3. More or less *lymphocytosis—i.e.*, increase in the number of the small mononuclear leucocytes. But the whole number of white cells is not increased. These are the cases which yield readily to drugs and hygiene.

In well marked *chlorosis* we find:

1. Marked decrease of red cells.

2. Marked decrease of hæmoglobin.

3. Poikilocytosis (variation in the *shape* of the red cells—pear-shaped, clubbed, crenated, and oval cells). This condition is fairly proportional to the severity of the case.

4. Nucleated red cells or normoblasts are found rarely in mild cases, more frequently in severe.

5. Giant red cells or megalocytes and dwarf cells or microcytes are found in very bad cases.

6. According to Neudorfer* there is more or less leucocytosis. Cabot† states that there is no increase in the total number of leucocytes, although the lymphocytes are increased, as in other forms of anæmia. At any rate we

---

* Clinical Lectures, Vienna, 1895.

† *Op. cit.*, p. 137.

may say that the leucocytes play an unimportant rôle in chlorosis, the red cell being the part of the blood most affected.

In severe cases we may sometimes see marked fluctuations in the number of nucleated red cells. A sudden increase in the number of these abnormal cells is often followed by increase of the normal cells. This shows irregularity in the manufacture of the red cells, and possibly response to medical excitation.

In *pernicious anæmia* we have quite a different picture:

1. *Very great* decrease of red cells, far greater than in chlorosis.

2. In spite of the extreme pallor of the patient, the individual red cells show *no loss of hæmoglobin.* They stain as readily as normal erythrocytes, or even more intensely.

3. Poikilocytosis is strongly marked. The red cells show every possible shape, and are often scarcely to be recognized.

4. Cells of abnormal size abound. Giant cells and dwarf cells are easy to find.

5. Nucleated red cells, normoblasts, microblasts and megaloblasts are present, the latter form predominating.

6. Leukopenia, or actual decrease in the number of white cells, is the rule.

The characteristic feature of pernicious anæmia is the extreme diminution in the number of the red cells, together with the presence of a normal quantity of hæmoglobin in each individual cell. This is almost pathognomonic, and together with the irregularity of size and shape, and the presence of nucleated red cells, makes the diagnosis both certain and easy.

According to Neudorfer chlorosis and pernicious anæmia show their essential differences in the contrasting blood-pictures they furnish. Pernicious anæmia is essentially a disease of the bone-marrow, the source of supply for the red cells, and their number is diminished because this red-blood-making function is impaired. When new cells are made it is not by the normal process of development—viz., by way of the young, normal, nucleated red cell, the so-called normoblast—but by way of the pathological, giant, nucleated cell or megaloblast.

On the other hand, in chlorosis new cells are made from the normoblast through stimulation to activity by drugs and other measures.

This explains the more marked feature of poikilocytosis in pernicious anæmia, and the abnormal condition of the red cells generally. It also explains the complete failure of the system to respond to the stimulation of drugs.

In all forms of anæmia—primary, secondary, pernicious, and cachectic—the most characteristic fact is the change in the *red* blood-cells. In number, size, shape, nucleus, and hæmoglobin they are more or less affected. This furnishes a marked contrast with leukæmia, a disease where the *white* blood-cell suffers the greatest change. Leucocytosis does, indeed, occur in some forms of anæmia, but it is of the inflammatory type—a polynuclear leucocytosis, for the most part, and an inconstant condition, which does not complicate the question of diagnosis.

In the above named diseases the estimation of the hæmoglobin is of prime importance. As already stated, this is done with a fair degree of accuracy by the character of the staining. Formerly the hæmoglobin was estimated by the V. Fleischl hemometer, an expensive instrument, requiring considerable practise for its accurate use. If a more accurate method is desired than that furnished by staining, a very ingenious device may be used, which depends on the fact that the specific gravity of the blood rises and falls in proportion to the hæmoglobin present. We have only to take the specific gravity of a patient's blood in order to know the percentage of hæmoglobin, and this may be done with a single drop of blood. Pure benzole is lighter than blood, while chloroform is heavier. These two fluids can be combined to produce a mixture which has a specific gravity corresponding to that of normal blood—about 1059. Now, if we place a drop of blood in this fluid it will form a little ball by itself, without mixing with the liquid. If the specific gravity of the blood in question is below normal, the drop will rise to the surface. By adding benzole, and making the specific gravity of the mixture lighter, we can make it coincide with that of the blood. The drop will then remain in the center of the fluid, neither rising nor falling. Then we take the specific gravity of the mixture with a common urinometer, and this will be the

specific gravity of the blood itself. This test is very delicate, and is easily applied.

The following table from Hammerschlag* shows the percentage of hæmoglobin corresponding to various degrees of specific gravity:

Specific gravity.	Hæmoglobin.
1033–1035	25–30 per cent.
1035–1038	30–35 "
1038–1040	35–40 "
1040–1045	40–45 "
1045–1048	45–55 "
1048–1050	55–65 "
1050–1053	65–70 "
1053–1055	70–75 "
1055–1057	75–85 "
1057–1060	85–95 "

Finally, we have to consider the blood-picture in *leukæmia*, a disease where the leucocyte is dominant, and presents such a characteristic view that the diagnosis is frequently possible from a brief study of a stained preparation.

First, we have, as is well known, an enormous increase in the number of the white cells. Instead of the normal proportion of one white to six or eight hundred red, we have one white to one hundred red, or to fifty or twenty or a dozen. Cases are on record where there was one white cell for every red, or even more white than red cells.

In describing the condition of the blood in leukæmia we must bear in mind that this disease has several varieties. Virchow has classified leukæmia into the lymphatic, splenic and medullary forms. But for clinical purposes it is enough to distinguish the lymphatic and the mixed forms. By far the most frequent variety is the mixed, where we have involvement of the lymphatics, as well as enlargement of the spleen, together with a diseased condition of the bone-marrow, the ordinary yellow marrow being transformed into red marrow, such as is normally found in the ribs.

One of the most characteristic features of the leucocyte picture is the *polymorphology* of the cells. There are quantities of mononuclear, both large and small, polynuclear and eosin cells. The eosin cells are actually greatly increased in number, and it is stated by some observers that they are relatively increased as well. Indeed, it is claimed by Jaksch and Klein* that increase in the eosin cells is one of the earliest changes in the blood, and an important diagnostic feature in beginning cases. This is denied by Cabot,† who states that the eosin cells are absolutely increased, and that there may or may not be a relative increase. However this may be, leukæmia shows a marked contrast in this respect with inflammatory leucocytosis, since, as already stated, the eosin cells are in the latter practically absent, while in leukæmia there is at least an actual increase, to a large extent.

Besides the above named features, there are several things about the white cells in leukæmia which are more or less characteristic. For instance, there are many mononuclear leucocytes of immense size, with a large, faintly-staining nucleus, which gives the field of observation a typical appearance. There is also present a cell called the myelocyte. This cell is normally an inhabitant of the bone-marrow, and seems to be called forth into the circulating blood by the disease. It is much like the eosin cells in appearance, but it is only brought into view by the Ehrlich triple stain. It appears in vast numbers in well marked cases, there being from ten to twenty times as many myelocytes in a field as the total number of *all forms* of white cells in normal blood. This indicates how characteristic the blood-picture may be in a case of leukæmia. No matter how obscure the symptoms, a study of a stained blood preparation will at once clear up all doubt.

It might seem as if confusion could arise between the blood-picture in a case of leukæmia and a case of extreme leucocytosis from pneumonia or sepsis. But the mildest leukæmia has many times more leucocytes than the most aggravated leucocytosis. Moreover, as already emphasized, inflammatory leucocytosis is an increase of the polynuclear cells, with a decrease in the eosin cells, while leukæmia shows an exceeding variety in the kind of cells, a predominance of the mononuclear forms, especially of the giant kind, and the presence of hundreds of eosin cells and myelocytes.

*Cabot, p. 31.

*"Beiträge zur Keuntniss der Leukocytose," by H. Reider, p. 34.

† *Op. cit.*, p. 146.

Great emphasis is to be laid on the importance of examination of the blood in distinguishing between leukæmia and Hodgkin's disease. There is nothing in the blood-picture of the latter different from the normal, except a slight polynuclear leucocytosis. Nothing in the least resembling the peculiar picture of leukæmia is to be found. However confusing a case may be clinically, a brief examination of the blood will settle the question.

Tumors of the spleen may also be easily differentiated from leukæmia. Cabot* reports three cases referred to him with the diagnosis of leukæmia already established. In each case there was a large tumor, and in each case examination of the blood showed a large increase in leucocytes. From these conditions a diagnosis of leukæmia had been made. The examination of the blood had, however, been made without staining. When stained specimens were examined ninety per cent. of the leucocytes were found to be of the polynuclear variety, and there were no myelocytes. The blood-picture was clearly that of inflammatory leucocytosis, and not leukæmia. These cases subsequently proved to be, as might be expected from the blood-picture, malignant disease of the kidney.

Lymphatic leukæmia is much more rare than the mixed form, and differs from the latter chiefly in the excess of mononuclear forms. They form ninety per cent. of all leucocytes present, and the small usually predominate over the large.

There are other diseases in which the blood-picture is more or less characteristic, which cannot be here alluded to. In conclusion, it should be said that the whole subject is one which will bear further study, the result of which will be to extend the field of usefulness of this aid to diagnosis.

Appleton, Wisconsin.

THE ORIGINAL PACKAGE.

BY W. E. WARD, M.D.

There seems to be a great desire on the part of the manufacturers of proprietary remedies to get their preparations into the hands of the doctor's patients in the "original package." They reiterate the caution again and again to so prescribe them, and even show us how to write the prescription.

To one who has observed the solicitude of these gentlemen for years, it looks as if they were speaking one word for the doctor and two for themselves. The bugbear of substitution has been held up to view and its evils expatiated upon at great length times without number. Our friends the retail druggists have been warned continually, and some have even been convicted of the great crime of substitution, to their cost and sorrow.

Now, while I do not uphold substitution at all, I rise to ask these trusting doctors who have followed the urgent advice of the manufacturers and prescribed original packages, "What has been the result?" Has it not been that the dear people have learned what they are taking, and do they not now buy large quantities of proprietary medicines at the shops the same as they would salts or quinine? I think I hear the chorus of voices answer "Yes, they do."

Every reader of these lines who is a practising physician has had his mail loaded with circulars of all kinds, advertising semi-secret preparations "to the profession only," until he has become weary. And in them, if he has the patience to read, he will find testimonials to burn! They come from all over the land—from the unknown city doctor and the equally unknown practitioner of the country hamlet; and there are hosts of doctors who never have been and never will be heard from in any other way.

In certain cities there are large numbers of concerns which turn out these products, and some of them have made fortunes at it, thereby inciting others to imitate them.

It is true that a well-made proprietary or trade-marked article may be a good thing, for of necessity the maker depends upon its excellence to bring him trade. But it does not necessarily follow, as the editor of a widely circulated medical publication recently said, that "it would be infinitely better for the doctors and their patients if every medicine in the Pharmacopœia were proprietary."

Is not this a slur upon our manufacturing chemists who have labored faithfully for many years to establish a legitimate busi-

* *Op. cit.*, p. 151.

ness? And many of them have attained in the estimation of the medical profession to such a degree of excellence that any article made by them requires no protection by a trade-marked, pseudo-scientific name.

The shelves of the retail drug stores the country over are groaning to-day with the multitude of ready-made prescriptions which the druggist must of necessity keep on hand to supply his trade. And still there are new additions to the list daily. Their familiar names greet us at every turn. Not a medical journal can we pick up but we meet them face to face.

The good old-fashioned art of prescribing has largely fallen into decay. The old materia medica is a back number, and the "original package" is the thing now. Thus the laity become familiar with them, and when Smith gets sick he is recommended by Brown to get a bottle of this thing or that, which, he tells him, was what Doctor Blank prescribed for *him* when *he* was sick, and which did the business for him. The proprietaries are looked upon by the average patient in very much the same light as a patent medicine; in fact, it is a distinction without a difference, save that the ingredients of the patent article are on file in the Patent Office at Washington, while the Lord only knows what is in the proprietary article in many instances.

Would it not be a good idea to simplify our prescribing a little, and adopt the sharp-shooter plan in place of the ready-made, shotgun manner of treating our patients? We shall thus avoid the horrors of substitution, at least, even though we do not promote the "original package" idea.

Owosso, Mich.

PURITY AND MARRIAGE.

BY C. C. MAPES.

Modern scientific literature is strangely barren of information upon the question of healthy sexual living. One may search for days without finding a single contribution upon the subject from those who should be foremost in the literature, viz., the reputable medical profession. Numerous lectures are delivered each year before the classes at the various institutions of medical and scientific learning, but such lectures are not reported for scientific or other print, nor are they reproduced by the authors, which is indeed unfortunate when there exists a crying need for education and enlightenment in this particular branch.

In the medical profession, as among the laity, the idea seems to prevail that sexual subjects should not be discussed; that even the mention of the reproductive apparatus in so-called "polite" society should be frowned upon and prohibited; that such conversation even of a scientific nature tends to the production of vulgarity, obscenity, lasciviousness, immodesty, shamelessness, undue familiarity, and immorality. Careful study and investigation have forced the conclusion upon the writer that the *grossest immorality* often exists in so-called refined, polite society, where to *talk plainly* upon sexual subjects would mean immediate and perpetual ostracism from the gilded circle. This is no idle fancy, as can easily be demonstrated by any one who cares to investigate the subject, if possessed of sufficient sagacity and tact to elicit facts; yet when this statement is brought to the attention of the masses, *élite* society will likely hold up its hands in horror.

It must be remembered that innocence (*i.e.* ignorance) does not conserve virtue, when applied to sexual matters; to possess knowledge does not imply impurity, in fact the reverse is true. Because, for instance, a young girl innocent (ignorant) and uneducated in regard to human genesis and her reproductive functions consents to proffered sexual embraces of the importuning, impetuous young male, does it render the act less sinful? Lack of knowledge "that it was loaded" does not lessen the ultimate effect of a pistol shot!

As remarked on a previous occasion,* the freedom of intelligent, refined conversation on sexual subjects ought to be broadened; it should no longer be considered indecent to speak plainly. The only manner in which the youth and adolescent of both sexes can be conserved from physical disaster and moral contamination is by affording them adequate

* MEDICAL AGE, vol. xiv, No. 15; see also MEDICAL AGE, vol. xiv, No. 4.

facilities for and insist upon their obtaining a comprehensive knowledge of their physical and physiological being, their sexual functions, the differences between the sexes and their relation to each other considered from a sexual and moral standpoint,—in other words, a competent early education in sexual morality. These statements since publication* have been assailed by high authorities, and praised and commended by others equally high. Opinion is divided upon this as upon most other important topics—"fools agree, wise men differ;" and regardless of adverse criticism, the writer still maintains that the position he has taken is the only correct one, and that it can be substantiated by facts. The principal reasons deduced and arguments presented by adverse critics are based upon nothing more tangible than ancient customs and beliefs, neither of which carry convincing weight except to a few back number, pseudo-philanthropists, false moralists, and would-be social agitators, whose views are of no more importance than those of the old granny who says "I told you so," after certain things following in direct sequence of cause and effect have already transpired.

Healthy sexual living, generally speaking, at the present day, it is safe to aver practically nowhere exists. Even in the rural districts venereal diseases are not uncommon, first transported thither by some gay country Lothario who has visited the city and basked in the sunshine of the *demi-mondaine;* then the disease, be it gonorrhœa or other venereal manifestation, is disseminated among his female country companions of easy virtue, and as the latter often bestow their favors upon other males the disease is still further disseminated and perpetuated. The average ignorant country maiden, though she may often indulge in sexual embraces among her element, would sooner die than undergo the ordeal of a physical examination by the physician; therefore if she becomes infected, innocently or otherwise, with gonorrhœa or other venereal disease, she is likely to remain diseased—untreated and uncured—until development of complications and sequelæ which foretell speedy death unless relieved. Thus it may be seen why gonorrhœa, once introduced into a certain community, is perpetuated almost indefinitely.

The country youth, ignorant of the "sinful city ways," is a certain mark for the designing, paint-bedaubed, upholstered denizen of the slums; she speaks to him accidentally (?) on the street; he thinks her an angel of innocence and sweetness; he follows, or is enticed, to her apartment, and after a large amount of persuasion on his part she reluctantly (?) submits to his sexual caresses, declaring by all that is good and holy that "it is her first and only dalliance." He believes the statement, and the illusion is not dispelled until he wakes up next morning to find that his charmer has fled and with her all the valuables he possessed. Nor do his troubles cease here; he experiences a heretofore unknown sensation about the penile portion of his anatomy; when he gets up in the morning he finds that the meatus urinarius is red and pouting, and pressure behind the corona glandis causes a drop of thick, greenish-yellow pus to exude; the urine stings as it is passed *per urethram;* a profuse, yellowish discharge appears; he experiences severe pain at times, and to use his own expression, "his penis tries to look up his back." At last, after numerous futile attempts to micturate, he consults a physician, and if an honest one receives not only proper treatment, but some well merited advice.

Take another view of the picture: Suppose he returns to the country after his "night" with the "gilded angel;" he infects every female with whom he copulates until such time as he perforce ceases his sexual demonstrations, or applies to the physician for necessary advice and treatment.

These illustrations are not overdrawn, nor are they deduced with the view of claiming anything new or original, but simply to emphasize the importance, the imperative demand, for a higher standard of sexual education among the masses; a more comprehensive knowledge among ordinary people of such matters,—that virtue may be conserved; that venereal disease may be checked; that the evil of prostitution on the part of both sexes may be as far as possible mitigated; that through accurate knowledge and a proper understanding of these matters by

**Loc. cit.*

both sexes healthy sexual living may become the rule.

Another illustration: A young married man, either through natural immoral tendencies or disagreement and dissatisfaction at home, seeks sexual pleasures elsewhere, contracts gonorrhœa or syphilis, and transmits the disease to his innocent wife and it may be his unborn child. Consider the suffering and anguish inflicted upon two innocent human beings! Can it then be said, with a shadow of truth, that there is not an imperative demand, a crying necessity, for pure sexual living? To reproduce the exact language of a renowned lecturer on physiology:* "If there could be brought together a race of men and women, *alike educated*,† and in whom sexual excitement had never been caused, I believe there would be a greater uniformity in the sexual gratification than there is."

In an article on Prostitution‡ I made the following statements, which aptly apply in this connection·

It is a deplorable fact, and rather surprising also to one who has not given the subject a thorough and scientific study, that gonorrhœa is alarmingly prevalent, especially among males, in what is termed polite society. Cases are not infrequent where the husband visits a brothel, becomes infected, and in turn transmits the disease to his wife.

Again:

Imagine a young man, on the eve of his marriage to an innocent, physically healthy young woman, visiting a brothel and becoming infected with gonorrhœa or syphilis which does not manifest itself until the marriage act is consummated! Think of the indescribable suffering inflicted upon the bride, who is in turn infected! Is it a wonder that many pure women club together and declare that marriage is a failure? Have they not a right to demand and expect health and sexual purity from mankind in marriage? Would they not in disgust refuse to marry the best men in the universe, knowing that they had frequented brothels and slums and tasted the forbidden fruit until their systems had become charged, surcharged and saturated with the virus of syphilis or the equally virulent and persistent germs of gonorrhœa? A thousand times yes! But the unfortunate part is that the female is denied every possible means of gaining correct information upon these vital points, and has to blindly take her chances in entering the matrimonial state, and take the consequences. Let us pray that the day is not far distant when higher enlightenment on the part of both sexes will be imperative, when women (as well as men) may understand these important matters, and can demand of men that they offer themselves in marriage morally and sexually clean and free from all taint; when syphilitics and gonorrhœics shall be forbidden by law to contract marital alliances; and when these maladies shall be subject to enactments the same as hedge about other contagious and infective diseases. How many young men at the present day arrive at marriageable age without having had gonorrhœa from one to ten times? I dare say scarcely five per cent.

In the same paper* the following was cited from the pen of Doctor Griffin:†

Surely syphilis is on the increase. No one knows, except one who does this special work, how much syphilis is about. It penetrates all society. Some it infects by direct contact by connection; with others it is grafted by an innocent kiss or perhaps by a stick of candy or a toothbrush, by grease-paint, or by drinking out of a cup. Yet the law-makers, the clergy and the people think they are doing right in not recognizing something that does exist and is liable at any moment to be inoculated into the system of an innocent baby boy or girl by the blindness of the sin, ignorance.

Kelly says:‡

It is not a venial sin for men to consort with prostitutes. It blunts a man's finer sensibilities, it lowers his respect for women, it leaves its indelible marks in disease; for sooner or later every man who indulges his passions unlawfully contracts disease. It is not possible for men or women who prostitute themselves freely to escape it. And these diseases are not only the most loathsome and the most disgusting in their early manifestations, but they have the horrible characteristic of becoming latent. A man who contracts disease of this sort can never be sure that he is cured, for venereal disease is not a merciful disease, like cancer, killing its victim within a certain definite time. Rather, it is a death in life; such local lesion may occur as to destroy forever sexual function, and the unchaste man finds he is incapable of realizing one of the chief blessings of life, surrounding himself with a family of children, who will be to him in the struggle of life a daily incentive and comfort, in whom in

---

* Doctor Edward R. Palmer, Louisville, Ky.

† Italics mine.

‡ Medical Age, vol. xiv, No. 20.

---

* *Loc. cit.*

† *New York Medical Journal*, vol. lxvii, No. 21.

‡ Doctor Howard A. Kelly, *Health Magazine*, vol. iii, No. 11.

old age he may live again. Or, if not made sterile himself, he may make his wife sterile, and this is one of the most pitiable and most unjust results of the immorality of men. No man, no matter how much he may prostitute himself, ever marries a prostitute! No, his wife must be a pure woman, and perhaps he may infect her at once. Fancy the shame and pain of that to a sensitive, pure-minded woman!

In the course of my own professional experience I can truthfully say that I have never met with a single instance in which disease of any kind was present as the result of a pure or continent life. . . . Many a poor girl, especially if she has once erred through trusting a man too far, is compelled to live in shame to live at all. (Kellogg.)

It has been truthfully said that ignorance is the very mother of vice.* It becomes an extremely serious matter when we reflect that children of both sexes are allowed to reach adolescence, yea, even manhood and womanhood, in absolute ignorance of the truths of human genesis, their procreative functions, morality viewed from the standpoint of sexuality, etc., etc. The results of their innocence (ignorance) are made apparent to us daily, and the statement is often made, after it is too late, "Why was I never given an insight into the truths of which you speak? Had I understood the full import of the matter, as I do now, my actions would certainly have been different." Those upon whom the responsibility of proper education falls—viz., fathers and mothers—have resorted to deception, subterfuge and even falsehood to avoid the elucidation of plain, living truths,—in an endeavor to maintain and perpetuate innocence, which means nothing more than ignorance.

A recent writer on "Social Purity and Marriage" covers so many points of practical importance that his article is herewith reproduced verbatim:†

It seems that new ideas and principles increase in number in a direct ratio to the lengthening age of the world. One which can be referred to the rapid spread of scientific knowledge among the people in general, and especially to the higher education of women, is the growing conviction on the part of the gentler sex that they should not receive into their arms the men aspiring to conjugal felicity who cannot bring to them a guarantee of freedom from diseases which, when existent, may menace the health of the wife and her children, and destroy the happiness which marriage should bring to all who participate in it. That great educator the modern novel, its coworker the problem play, and last, but not least, the higher education of women, have all been potent influences tending to take sexual relations from its place among the mysteries of life, from the darkness with which it has always been environed, and allow the clear sunlight of scientific knowledge to shine upon it. Such influences as these are to many maudlin occupants of the pulpit proofs of degeneracy—of what they are pleased to term the impure spirit of the age. To the calm and careful thinking sociologist they are evidences of a wish to see the question settled. To end controversies is preeminently the spirit of the century in which we live, and what our sexual relations should be is but one of the problems of which we seek the solution. Knowledge is not impurity; innocence which knows not its place in the world is degrading. Normal, healthful sexual intercourse is no more wrong than is the performance of any other purely physical act, and it only becomes wrong when performed in the face of social law. Our social system puts clearly defined limits upon sexual indulgence, and proscribes license. Our intelligent women are waking to the fact that the social law was not made for women alone, but applies in all equity to the opposite sex as well.

A moral nature so finely developed that it will not permit its owner to enter into the marriage state, bearing the seeds of possible direful results to wife and family, is not common among men. Sometimes mistaken and pitiable marriages are the result of ignorance rather than of moral deficiency, but the family physician and the consultant gynæcologist are no longer the only ones who know why such and such a wife is an invalid, or why such another one is sterile. Keen-sighted women are coming to understand these things. Victims and sufferers, perhaps, themselves, they are rising in defense of the daughter's health and happiness from the results of a life of lasciviousness antedating marriage on the part of the man who desires to share the conjugal bed.

From Paris, that star in the firmament of cities, as well as the cloaca of civilization, comes the latest instance of this awakening on the part of thinking women. At a Woman's Congress recently held resolutions were adopted to the effect that "all families must secure certificates of health from intended sons-in-law, in order to guard the daughters of the Republic from the risk of contagious or hereditary maladies in the aspiring fathers of a later generation."

Medical men have accomplished much in promulgating the doctrines founded upon their work

---

* Innocence is not purity, but knowledge with restraint is. The sexual nature, a measure of the Divine creative energy, is essentially pure, only its misuse is dishonorable.

† "Social Purity and Marriage," by E. S. Bullock, M.D., of New York. *The New York Polyclinic*, vol. viii, No. 6.

and study, and the world is bound to awaken to the importance of the subject when it understands that fifteen per cent. of all diseases of women, excluding prostitutes, are caused by gonorrhœa and its sequelæ. Still, and in spite of this, only a small proportion of the credit of educating upon these lines belongs to the medical profession. Medical literature is peculiarly barren of knowledge relating to sexual subjects. Medicine, like parents, leaves this as the one subject to be avoided.

Let us say all we can in encouragement of the women of France in their good work, and extend a welcome to the fast approaching time when the young couple starting out on the way of married life come to each other with a clean bill of sexual health. It will be one great step toward the future marriage, which, like good life insurance, will be impossible without a certificate of freedom from hereditary or acquired disease.

While I cannot agree with the author above quoted that the "modern novel" and "its coworker the problem play" have had much to do with the modern scientific enlightenment of the masses, his opinion is given for what it may be worth. To those who are even slightly familiar with the "modern novel" and the so-called "problem play," additional comment is unnecessary. We cannot refrain, however, from offering the criticism that the trend of both modern secular literature and the modern play is decidedly against the elevation of public morals, and the attempted dissemination of *scientific knowledge* through the medium of such agencies is to be deprecated. How can we impart to others that which we know not ourselves?

As to the *modus operandi* of bringing about, *vinculum matrimonii* and otherwise, a better understanding of the truths suggested in the foregoing, and ultimately a condition of healthy sexual living, I summarize:

That an accurate and comprehensive knowledge of sexual matters is requisite on the part of both sexes:

That a single standard of sexual morality should be demanded and insisted upon:

That both sexes should seek to elevate morality by correctly imparting to others scientific knowledge they have obtained by proper study and careful investigation:

That men should live as pure and clean sexual lives as they expect of the opposite sex whom they would espouse in matrimony.

Louisville, Kentucky.

THE PROCURATION OF WATER-SUPPLY.

BY W. T. SARLES, M.D.

Nature's richest endowment to mankind is pure water; and though man treats this gift with apparent contempt, it nevertheless appears more patent to each successive generation that pure water is as essential to physical health as pure morals and pure politics to a healthful republic.

Before the learning of man had conceived the possibility of water's containing any living organisms, and while its chemical analysis was yet little understood, a story is told of a heated argument which is alleged to have taken place between a well known chemist and a clergyman of that time, and if true is quite in keeping with some arguments now in vogue between the scientist and laity relative to biological investigations of water. The chemist had announced that H_2O represented the chemical formula of water. The clergyman took exception to his teachings on the ground of its being in opposition to his interpretations of the Bible, for, says he, "Does not the good Book read h–o, 'Ho, every one that thirsteth, come and drink of the waters of life freely.'" This anecdote has always impressed me forcibly with the bold yet superficial criticisms which history (as well as the experience of the present time) teaches exist between the true and the false interpreter of philosophical as well as scriptural knowledge. And verily this great subject of water-supply is no exception to false interpretations.

All potable waters contain a percentage of micro-organisms, though not sufficient to produce disease; but under unfavorable conditions, and through contamination, this percentage may be so increased as to make it unfit for domestic use without artificial purification.

Nature is the greatest producer of pure water through the process of precipitation, filtration, and sedimentation, and man is the greatest contaminator of the same in existence. "From a sanitary standpoint the most important sources of contamination of water-supply are those arising from the influence of human habitation and industry." Where Nature's pure water-supply has thus become contaminated by man, artificial methods of

purification must be employed. Fortunate, indeed, is the city which Nature has endowed with an abundant supply of pure water, and wise indeed the city which least contaminates that supply. Where surface streams must be the source of water-supply, their intake into the system should be as far above any of the sewerage or drainage outlets as possible, and should then first be taken through a suitable medium of filtration into a reservoir for sedimentation before entering the system for use; and if taken from a lake, the intake should be placed beyond the reach of shore sewage or drainage by prevailing winds or other causes. All this frequently means an outlay of a vast amount of money, yet nothing pays a municipality in wealth, health and happiness so well as a water-works system with an abundant supply of pure water for distribution.

All cities of even 1000 inhabitants and upwards are best served from a sanitary as well as commercial standpoint by the adoption of a water-works system. Such a system should always be constructed under the supervision of a qualified sanitary engineer. Before the question of water-supply for the system is settled, a sanitary analysis of the various waters to be had should be obtained, together with the adoption of a location away from the possibility of any present or future danger of sewage contamination as stated. This examination should be reported at least once a month, and oftener if occasion demands, for the safety of the consumers.

The average municipal council or private company having authority in these matters is prone to look only upon the commercial side of the question, as supply for fire protection and irrigation, and overlook the need of protection for the *life* of the household rather than the house itself.

Again, water-works systems should be owned and controlled by cities themselves, for reasons of a financial character as well as from a sanitary standpoint, and the health officer of a city (who is expected to be a capable medical man) should be the sanitary officer and inspector of the water in use, and it should be his duty to make a systematic monthly report, as stated, of the sanitary analysis as made by the State chemist or himself, if qualified. This requires but a modest outlay each month, if paid by the city to the State chemist, and in some instances legislation now asks for free analysis.

The diversities of soil and water make each city a law unto itself in the matter of obtaining an abundant and pure supply of water. Where streams are small, and especially where necessary to contaminate them by present or future sewage, rather than to depend on artificial filtration, the well system is certainly preferable for supply, and the streams alone for drainage, so long as sewage farming is so difficult to make effective.

The English Rivers Commission gave positive expression on the subject of water-supply from streams used for sewage in the following language:

> Of all the processes which have been proposed for the purification of sewage, or of water polluted by excrementitious matters, there is not one which is sufficiently effective to warrant the use for dietetic purposes of water which has been so contaminated. In our opinion, therefore, rivers which have received sewage, even if that sewage has been purified before its discharge, are not safe sources of potable water.

And, we might add, neither are they safe sources of potable ice supply.

This testimony, with other equally effective, makes the question of water-supply one necessary for artificial purification unless taken from absolutely uncontaminated sources. Some small cities have separate systems where the well-supply is limited and the streams are large, and furnish their drinking fountains from the well system, and the fire and irrigation systems from the surface streams. Such a plan requires individual, or house, filtration or boiling, when not patrons of the well system.

These wells should be either large reservoir surface wells, or deep drilled artesian wells. Where large beds of water-bearing sand are to be had, large brick or stone wells or reservoirs sunk into these beds of quicksand or sand rock furnish a soft and pure sand-filtered water that is equal to the purest spring or mountain stream water. "These wells, although not exceeding one hundred feet distance from a river bed, do not derive their supply from the river, but rather from the drainage of the higher levels toward that bed." These wells give less mineral, and are

more potable than any others, and where the sand is abundant but little care is required to keep them thoroughly pure. The deep or artesian well system is in general use, and gives good satisfaction, except where the mineral is in such quantities as to cause damage to the water-works system and vessels used in handling the same, and also to such an extent as to interfere with potability; but its freedom from bacterial contamination is unquestioned.

The quantity and quality combined, therefore, is the question which confronts most cities, and unless sufficiently provided in this manner must be taken from even suspicious sources and treated by artificial methods in the production of potable water.

The means employed to purify water biologically are: Sedimentation: Precipitation: Filtration: Sterilization,—and in some cases a combination of all four.

Space will not permit of a discussion of these, but an able exposition of the same can be had in the Reference Handbook of the Medical Sciences, vol. ix, from the pen of Wyatt Johnson.

Boiling is the most common method of treating suspicious waters for dietetic purposes now in use. The use of good filters gives fairly excellent results when they are properly cared for. For large plants, sand-bed filtration is certainly the best known effective method of filtration at the present day. The broken stone filter, and various large chemical filters in use, require extreme care and much expense to make them effective. Sedimentation is much employed by the use of reservoirs above the source of water-supply, for use in the event of filtration being imperfect, at times thereby combining the two processes.

As the surface of the soil contains millions of bacteria per cubic centimeter, and the deeper down the less, until none are reached, it argues that the safest well for the city or country, from a sanitary standpoint (unless abundantly supplied by sand filtration), is the deep driven, or artesian. In the case of rural districts it is necessary as well to see that wells and springs are placed where the drainage and washing from cesspools, barn-yards, etc., cannot possibly enter them, and the deep driven well certainly obviates these dangers.

Where power is needed to furnish water on the table-lands, especially from deep driven wells, the practical windmill is of unlimited service, cheap, and furnishes the farmer an ample supply of pure water.

Typhoid fever has materially lessened in rural districts since using the deep driven well, where formerly the water-hole and cistern were used. The same may be said of villages and cities using open wells and cisterns.

Verily the old open well of boyhood days teeming with bacteria, manned by its old oaken moss-covered bucket, has given place to the well deep driven into Nature's filtered, subterranean streams, guarded by its iron armor against bacteria's forces, and manned by the power of steam or air. The use of iron piping, and the knowledge of the sources of water-supply, make it possible for residents of either city or country to be provided with potable waters at all times and in all places.

Sparta, Wisconsin.

THE SOCIOLOGIC ASPECT OF GONORRHŒA

BY O. B. ORMSBY, M.D.

The cause, the course, cure and consequences of gonorrhœa have long been subjects of discussion. The site and manner of the invasion of the disease; the mode of its propagation to deeper tissues and more distant organs, whether it passes beyond the urethral compressor by advancing along the continuity of the mucous surface, or evades the obstruction by following a lymph channel, are questions that have been attentively studied by many patient observers. To discuss again these questions is not the purpose of this paper, but gonorrhœa, in common with some other diseases, presents features which entitle it to consideration as a distinct element in its influence on society. This aspect of the disease, while not in the strictest sense belonging to the domain of medical science, is so closely connected with the objects and duties of the medical profession as to make it a proper subject for attention.

I shall have little to say concerning ordinary prostitution, as the "social evil" has been discussed from all points of view, and they who transgress must run the risk and

take the consequences. Neither do I consider the acute, virulent attack of gonorrhœa, though it may end in pyelitis causing death, as the principal reason for investigating its influence upon society. These are rare cases and affect few others besides the immediate victims. It is the so-called "latent" gonorrhœa, the chronic, the uncured cases, of which there are many both in the male and the female, with which society is most concerned. A vast number of these cases are, by the patient, his friends and his physician, supposed to be cured; but occasionally from some sudden recess comes a little gleety discharge containing an abundance of Neisser's gonococci. With him toleration has become established—his cells have become educated to resistance—but once the virus of this discharge reaches an ordinary mucous surface, then trouble begins. And right here is much ignorance, not alone among the laity but in the profession also.

Generally, when such a party decides to marry he consults no one, presuming in his ignorance that it is perfectly safe and proper for him to do so; but if he does consult his medical adviser the first question is likely to be, "How long since you had the clap?" "Oh, two, three, or perhaps five, years." "Well, then, I should consider it perfectly safe; that little glairy discharge you have occasionally is probably caused by a slight stricture somewhere in the urethra;" and without examining the discharge for the gonococcus or the urethra for the stricture, he quite likely sentences some innocent woman to a life of disease and misery far worse than death. Such a thing is not merely the wrecking of the happiness of one life; it is the murder of a home, the destruction for those concerned of all that is dearest and most desirable in life. Where married partners are separated for some time it not infrequently happens that one or the other (sometimes both) of the parties become infected with the gonorrhœal virus with deplorable results. We are all familiar with them as exhibited in the male, but take the case of the female. The suffering consequent upon a gonorrhœal pyosalpinx is not only exceedingly acute but also nearly interminable. Very generally relief is to be obtained only by means of a very severe, dangerous and expensive surgical operation. Do I make the consequences of gonorrhœa appear more formidable than is warranted by the facts? Let us call counsel. Ricord says: "A clap commences; God only knows when it will end." Sinclair remarks: "Gonorrhœa in the woman is as ruinous as syphilis." And again: "Gonorrhœal infection in woman gives rise to a group of diseases which, by reason of their clinical interest and their social and moral consequences, surpass in importance every other class of affections which claim the attention of the gynæcologist." Lawson Tait affirms: "Syphilis is a relatively harmless disease. It may cause discomfort and distress and even much pain; but I doubt if it ever kills women. If it does, where syphilis kills its tens, gonorrhœa kills its thousands; and it would take the sufferings of a hundred cases of syphilis to make up for the long, weary years of agony of one case of gonorrhœal pyosalpinx."

This might be considered reasonably good authority; but I can confidently appeal to experience (which after all is the best authority) for confirmation of my statements. And yet this destructive disease is prevalent and wide-spread. It is confined to no class or condition. It is found among the poor, the rich, and the well-to-do. In one way or another it claims victims from every rank in society. To the young and inexperienced it is a subject for unlimited mirth and the laughter that Solomon compares to "the crackling of thorns under a pot." The blear-eyed tough will tell you that a clap is no worse than a bad cold; and the blame for this contempt displayed for a really serious disease is largely chargeable to members of the profession, by reason of the indiscriminate classing of all urethral discharges as gonorrhœa. Many physicians, self-deceived, seem to regard a gonorrhœa as of little consequence. After an entirely insufficient examination, a careless diagnosis is made, all sorts of urethral discharges being lumped together as clap; and because many of them recover in a few days, the reputation of true gonorrhœa as a stayer is much impaired. Again, the laity fail to associate the long-continued and distressing cases with gonorrhœa. The idea is fixed in their minds that the disease, even when severe, is essen-

tially ephemeral, and this also in part accounts for their carelessness concerning it.

Now, for this state of affairs, in which no one can deny that society and the medical profession are both rightfully interested, what is the remedy? To whom shall the people look to initiate measures for the suppression of these evils? Assuredly the people will turn at once to the medical fraternity. The subject is largely within our sphere; and they will call upon us not in vain, for when has the medical profession proven recreant to the trust reposed in it? And what can be reasonably expected of us in the premises? We must begin a movement for the better understanding and appreciation of these matters, first among ourselves and then among our clients. Long ago the man who stood by and saw his fellow "drawn to death" was pronounced guilty; and if we sit still and see our neighbor's sons and daughters delivered ignorantly to a living death, we are culpable. The traditions, the principles, the past record of our profession, all call upon us to employ our best efforts in the defense of society against this as well as other evils which are found in our department of the world's work, and we must heed the call.

Beginning, then, with ourselves, we must be more careful and exact in our diagnosis, more guarded in our prognosis. We must inform our patients of the serious character of the destructive consequences of the disease, and above all, must never pronounce a patient well until we are absolutely certain no gonococci are hiding away and lying in wait for a fresh victim. Having thus trained ourselves and our immediate clientage, the great and arduous work of opening the eyes of the laity to their errors must be vigorously pressed. In my judgment the pen of some ready writer, competent and thoroughly imbued with the importance of the subject, might well be employed in the preparation of a little treatise or booklet especially designed for and adapted to the unprofessional reader. The subject has already attracted the attention of a few writers of fiction, and has thus partially, but inadequately, been presented to the reading public; but, as was to be expected, lacking the knowledge which through many years has been gathered by the medical profession, their work has been imperfectly done. It has, however, been work in the right direction, for the evils from which humanity suffers can be eradicated only by exhibiting them in all their hideousness to the people until they are aroused. Then out of the multitude of counselors safety shall be brought forth and our profession shall again deserve the plaudit: "Well done, good and faithful servant."

Murphysboro, Illinois.

"THE DOCTOR."

BY C. E. L.

Oh, why not be a doctor, and for the public work;
Be vigilant and faithful, your duty never shirk?
There's lots of good that you can do among the common trash,
Who will always keep you busy if you do not mention—cash.

Don't be avaricious, and wish that you were rich,
But labor for the people, who are wallowing in the ditch;
Sleep with one eye open, on dark and stormy nights,
For Johnny has the croup, and Jennie has no appetite.

What if you *do* go hungry, you're but a public dog;
You should wait upon all comers, in sunshine, rain, or fog.
Remember your profession is a very sacred thing;
Your duty is to cure men, not to ask them for the "tin."

In cases of contagion, be never wanting there,
But hurry to the battle, though you yourself despair;
Don't run away from danger, but be always strictly "in it,"
And do your level best, though you lose your life next minute.

Should you by chance live many years, and follow my advice,
What multitudes of people will say that you were nice;
And when your labor's ended, resting in that narrow lot,
How many poor will bless you, and sigh for good old Doc.

CHLOROFORM AS AN ANÆSTHETIC.

This is very seldom used in the Dublin hospitals. The patient is first put under the influence of nitrous oxide, and when anæsthesia is secured it is produced by means of ether.

THE MEDICAL AGE.
A SEMI-MONTHLY REVIEW OF MEDICINE.

—PUBLISHED BY—
WILLIAM M. WARREN, Medical Publisher. Box 470.

All communications regarding papers, reports, etc., should be addressed to the Editor of the MEDICAL AGE, P. O. Box 470, Detroit, Mich.
Matters relating to advertising space, etc., to be addressed to the publisher, William M. Warren, Box 470, Detroit, Mich.
The editor cannot engage to return rejected manuscripts or to correspond with the writers thereof, unless such are accompanied by sufficient postage.

DETROIT, MICH., DECEMBER 10th, 1897.

Editorial.

WHY DO CRIMINAL ABORTIONISTS GO UNPUNISHED?

That criminal abortion is one of the most frequent of crimes can easily be demonstrated by a little painstaking investigation, but unlike some other crimes the perpetrator in the majority of instances goes unpunished. The reason for this seems to be inability on the part of authorities to secure incriminating evidence on the one hand, and lack of desire on the part of all concerned to prosecute on the other. In some of the States, it is true (more's the pity), there are no statutes covering criminal abortion, but the sections on murder are specific and plain. If criminal abortion is not *murder*, what is it? Murder is defined as the *wilful taking of a human life;* if the wanton destruction of a human being *in utero*, at any stage of development, is not the *wilful taking of a human life*, then the writer confesses that he fails to understand the import of the term murder.

In THE MEDICAL AGE of November 25th, 1896,* an attempt was made to establish the fact that *criminal abortion* should, in all instances, be classified as murder, and should likewise be so regarded, *de jure* and *de facto*, arguments to the contrary notwithstanding.

It is recognized, *horribile dictu*, that many people, even in this supposedly enlightened age, endeavor to justify abortion, criminal or otherwise, by the argument that the child at the time was not or is not viable, that quickening had not or has not taken place. As to the former, if the embryo were not alive (viable) growth and development would certainly not take place; secondly, the phenomena of quickening may or may not occur, or be observed, by the mother or others during the course of a given pregnancy. Therefore neither argument is entitled to a moment's consideration, and it is surprising that experienced and careful observers, and able, conscientious writers adhere to such ridiculous views. To deny that the human embryo possesses life (viability) until it has attained a certain size, definite age, or stage of development, is simply to deny its existence, a proposition which is as untenable and untrue as it is ridiculous.

Criminal abortion, generally speaking, is confined to no nationality, class of society, or section of the country; it is more or less prevalent everywhere, among all classes (with perhaps the sole exception of the Jews), according to the best evidence that can be obtained. The practise has been both upheld and denounced since the earliest ages without appreciable effect, except possibly to increase its prevalence.

The professional abortionist finds a fertile field for plying his filthy trade in most large cities, and many of the smaller ones are not exempt from his obnoxious presence. His clientele is verily a motley crowd,—the brazen-faced, powdered, gum-chewing, cigarette-smoking, red-light denizen of the slums; the well-dressed, innocent-looking, unfortunate country maid; the diamond-bedecked banker's daughter,—wives, daughters, yea, mothers, from all classes and conditions of society meet in his "parlors." His services are in demand, and sometimes there is a veritable epidemic; he has engagements for every hour in the twenty-four, at probably $150 to $5 per capita, according to the prominence and wealth of the applicant. The writer is told of an instance where one female has been taken to a criminal abortionist on five consecutive occurrences, and the operation to relieve her of an illegitimate fœtus has been successfully performed as many times; but there is no statute to cover the crime, so long as the woman herself survives the proceeding; and if the report is true the authorities, if cognizant of the crime, have taken no action towards mitigation or possible punishment. Suppose the female were to die after such an operation, even though

* "Criminal Abortion," by C. C. Mapes.

death might be clearly due to the methods employed, and the writer believes such is not infrequently the case, it is doubtful if sufficient evidence could be deduced to justify a conviction, or on which to base the charge of murder. So long as the woman herself survives the operation, there being no statute, and at common law it not being regarded an indictable offense to destroy the products of conception within a certain limited period, as a matter of course conviction *could not* follow under the law in its present state. That a statute covering the matter is imperatively demanded is patent, but to enact and enforce one is an entirely different question. The law-makers may have had some good reason for failing to effect legal enactment which shall adequately cover the point under discussion, but whatever that reason may be, it is certainly based upon false premises, and it is hoped for the good of humanity that a radical change will be promptly forthcoming. A statute should be framed and put into effect, which shall have for its purpose the conviction and punishment of all those persons proven guilty of criminal abortion — the wilful destruction of the unborn infant—at whatever stage of utero-gestation the crime may be committed. As to what the penalty should be, in the opinion of the writer, to be commensurate with the gravity of the crime, it should be the same as for murder, — viz., death, or imprisonment in the penitentiary for life, in the discretion of the court. With such a law in effect, if its enforcement could be realized, there would be no excuse for lack of conviction, provided trustworthy evidence could be secured. As to the latter feature, it is recognized as almost impracticable to obtain reliable facts concerning the commission of any crime around which such a veil of secrecy is enwrapped, for the reason that the *particeps criminis* (the female) often belongs to the first society of the community in which the crime is committed, and to give evidence would be to incriminate herself; but the law should be so fortified and formulated as to adequately protect her in order to punish the one most guilty, although, of course, under ordinary circumstances the female upon whom the operation is performed should be regarded as equally guilty, as it is at her earnest solicitation that the crime is committed. Moreover, not infrequently the crime is committed by the female herself unaided, and in such cases she should receive the full punishment. It must be stated, however, that evidence sufficient for conviction under such circumstances could hardly be obtained, as the facts would only be known to the female herself, and no process of law could compel her to divulge them, when by so doing her life would be in jeopardy.

In a communication "Why Do Criminal Abortions Go Unpunished,"* one of our legal lights attempts to explain the reason for non-punishment of the criminal abortionists, and as his paper covers a great many points of interest and importance in this connection we take pleasure in quoting it *in toto*, although some of the information was given in a contribution by the writer previously referred to.† In a hurried search of recent medical literature the article of Mr. Taylor is the only one we can find bearing directly upon the question at issue:

> In answer to the frequently recurring question why criminal abortion should be so common, and yet why the perpetrators should be so rarely brought to justice, a few words of critical analysis may not be untimely. Ill-considered and hasty thought may place the blame upon incompetent or supposedly complacent prosecuting officers, but would such a conclusion be sound? A brief review, from the standpoint of the prosecuting officer, will show what difficulties he has to surmount.
>
> As all laws are of value only as they reflect the sentiment of the people at large, we note by way of preface that "the practise of destroying the fœtus *in utero*, to say nothing of infanticide, history declares to have obtained among all the earlier nations of the world, the Jews alone excepted, and to a very great extent. Aristotle defends it, and Plato. It is mentioned by Juvenal, Ovid, Seneca, and Cicero, and it is denounced by the earlier Christians. It was common in Europe through the middle ages, and still prevails among the Mohammedans, Chinese, Japanese, Hindoos, and most of the nations of Africa and Polynesia, to such an extent that we may well doubt whether more have ever perished in those countries by plague, by famine, and the sword." (Storer and Heard: Crim. Abor., p. 31.)
>
> We of this day may agree with the older writer that the slaughter of the innocents is "a

* Robert C. Taylor, *American Medico-Surgical Bulletin*, vol. ix, No. 14.

† MEDICAL AGE, *loc. cit.*

thing deserving all hate and detestation, that a man in his very originall, whiles he is framed, whiles he is enlived, should be put to death under the very hands and in the shop of Nature." Yet we must take into consideration the markedly small size of the modern family, and read that circumstance in connection with the fact that the expense of living continually increases, as civilization makes man's tastes more elaborate, and his needs more diverse. We know also that you cannot by statute regulate the natural impulse of man; and that the human impulse, of which criminal abortions are one of the after-results, is the most uncontrollable of all.

The conclusions which flow from these considerations are natural. That which the law cannot control, and yet seeks to punish, is thereby rendered secret in its performance; and, in natural consequence, punishment is rendered difficult, and often impossible.

With this preface we may consider at once the position which the district attorney occupies when called upon to prosecute a case of abortion.

We note in passing that the word *abortion*,* as commonly used, involves the idea of *two crimes:** one *the crime of abortion*, properly so-called, when no death of the mother ensues; and the second *manslaughter, when the victim dies.** The reader will be left to keep this distinction in his mind.

If the woman does not die, it is hardly possible for the crime ever to come to light. Every person involved in the affair, whether actively or passively, directly or indirectly, is for his or her own sake, *pledged to secrecy.** In fact, no explanation is needed of the practical impossibility of securing convictions in such cases. Upon the other hand, if the victim dies, the fact that a crime has been committed may then transpire; but the difficulty of fixing guilt upon any given individual still remains.

Mere circumstantial evidence is manifestly of but little weight. It is obvious that if a miscarriage is legitimately procured to save the life of the mother or of the child, the same external circumstances would, in large measure, obtain as would obtain where the act had been criminal. The difference between the justifiable and the criminal act lies ultimately in the intent with which each has been performed; and some reasonable proof of the criminal intent and purpose must be shown or the prosecution will fail. It is precisely at this point that the great obstacle in the way of the prosecution is to be found.

The victim is dead; *the defendant cannot be called upon to criminate himself or herself;** and any immediate witnesses of the transaction are in substantially the same position as the defendant. In fact and actual practise about the only possible proof of criminal intent is in the dying declaration of the victim, if the prosecution is fortunate enough to have the evidence of such a declaration.

In view, then, of the prominence which the dying declaration occupies in matters of this sort, we may fittingly explain its object and its limitations with some care.

As is well known, the evidence upon which a conviction rests may not be incompetent; and one of the chiefest classes of incompetent evidence is that known as hearsay. This, for the most part, consists of information derived not from actual perception of our senses, but from the relation and information of others who have had the means of acquiring actual knowledge of the facts. But for the reason that the person from whom the information proceeds is not under the sanction of an oath, and cannot be subjected to the ordeal of cross-examination, the great tests which enable truth to be confirmed or falseness shown are lacking. Moreover, as people in the common concerns of life act upon hearsay and report for the most part, they would naturally be inclined to give such evidence credit when acting judicially, and would be apt to forget how little reliance should be placed upon evidence which can be so easily and securely fabricated

Necessity has, however, required that in some instances exceptions be made to the rule excluding hearsay; and, as one of these exceptions, dying declarations are admissible, in certain cases, where the declarant is at the point of death and believes that all hope in this world is gone. As is the case with other exceptions, however, the dying declaration must be brought strictly within the rule in order to be admissible; and its proof is technical and difficult to the last degree, and affords the defendant's attorney ample opportunities of winning his client's case.

In the first place, as to the admissibility of the declaration, the law has wisely made such declaration admissible only when the declarant is at the point of death and believes that all hope in this world is gone. It is the solemnity of the occasion which is the sole guaranty of the truth of the statement, and justifies its admission, although the person making it is neither under oath nor able to be cross-examined. Obviously, the preliminary proof that the relator believed that all hope in this world was gone is most difficult. "While there is life there is hope" is no idle truism, and it is almost impossible to prove satisfactorily that the relator believed herself to be in the immediate presence of death and without hope of recovery.

Upon the other hand, supposing the declaration to be admissible, it is entitled at best to but little weight. If the declarant is shown to be at the point of death her statements are deprived of much of their credibility. In many cases they are no more than mute answers given by signs to questioning bystanders, by a person whose reason is clouded, and whose will-power no longer exists. Furthermore, the witnesses who hear this declaration are possibly in no position to weigh it carefully; so that the total result may be no more than the vaguest of charges against the accused person, lacking all precision and definition.

---

*Italics mine.

Under this proposition, that the dying declaration is of but comparatively slight weight, a case decided by the Court of Appeals within the last month is immediately in point. In that case the Recorder charged the jury that the dying declaration should be "given all the sanction of evidence which the law can give to evidence." The General Term set aside the conviction upon the ground that this charge was erroneous and was calculated to prejudice the jury, and afterward the Court of Appeals affirmed the General Term. Abundant reasons are given to show the inherent weakness of such evidence. As it happened, in the case before the court, the defendant was ultimately discharged because the weakness of this evidence was not admitted by the judge, who, upon the contrary, directed the jury to give it full weight. (People *vs.* Kraft, 148 N. Y., 631.)

Keeping these considerations in mind, it is no wonder that so many prosecutions of the character we are discussing fail. Immediately upon hearing of a suspicious death the police arrest all who can be fairly or unfairly suspected. Thus at once and most effectually the means of obtaining further evidence are foreclosed. The coroner or the committing magistrate is authorized to hold for trial upon very slight evidence; but the district attorney *cannot be expected to convict except upon evidence which carries conviction with it.** He must take the case as he finds it, with little or no opportunity of working it up into better shape, nearly every avenue of investigation being closed to him.

Although it is to be regretted that all criminals may not be brought to justice, yet it would be intolerable if the rules of legal proof were so loose that innocent persons might be made to suffer for crimes they never committed. Physicians who have attended in good faith in cases of this character have often been accused of complicity, and they, of all persons, are interested in having inquiries of this sort conducted decently and in order. The explanation of the small number of convictions, in comparison with the number of cases in which crime is believed to have been committed, lies in the secrecy with which this crime, in its very nature, is surrounded; and in the fact that such proofs as are attainable rarely do more than cast a suspicion of guilt upon the person charged with the offense.

While admitting all this learned authority says to be true, the fact remains that there should be devised and put into operation some plan by which evidence necessary to insure conviction can be secured. First, the law should be so formulated as to make it possible to procure, through proper channels, the necessary facts in known cases, and to institute adequate investigation in all suspected cases. Where present laws are defective, they should be immediately repealed and other and better ones substituted; or those in effect be properly amended and revised. The subject demands careful consideration and attention from both legal and medical authorities, and the combined efforts of the two professions should be sufficient to revolutionize and improve existing conditions.

While the professional abortionist may not attach a conspicuous sign to the entrance of his office which shall betray to every passer-by the exact nature of his calling, which shall convey the elevating information that he is extensively and successfully operating in his special line at a given price per capita, these facts are well known to the reputable medical profession, and may be known to anybody who will take the pains to investigate.

When it is suggested to legal authorities that criminal practises prevail in certain localities, are they not justified—should they not be empowered under the law—to make an investigation (forcibly if necessary) to bring facts to light?

C. C. MAPES.

Louisville, Kentucky.

* Italics mine.

EDITORIAL NOTES.

Lactic Acid in the Stomach.—

Some time since Boas claimed that lactic acid fermentation of the stomach contents constituted a pathognomonic sign of cancer. After careful examination Rosenheim and Richter emphatically disputed this claim. Also that the existence of so-called specific cancerous germs cannot be sustained, as the same are found in the various forms of disordered digestion, and even in some cases in which free hydrochloric acid is present.

Homœopathic Medicine.—

Doctor F. P. Lewis, a homœopathist, says there is no such thing as "homœopathic medicine." No drug belongs by divine right to any school.

Strychnine Poisoning.—

Recent experiments on animals seem to show that camphor is an efficient antidote for strychnine poisoning.

Items and News.

An Artificial Rain-storm.—

Into a cylindrical glass vessel four inches in diameter and eight inches high pour alcohol of 82°, to about half the height of the glass. Cover the vessel with a porcelain saucer, immerse nearly to the top in a deep water-bath, and cautiously apply heat, continuing the same until the entire vessel with its contents and the saucer acquires a high heat, but below the temperature of boiling alcohol. Remove from the bath as gently as possible, so as not to disturb the hot liquid any more than necessary, and set the vessel on a wooden table.

In a few minutes, or as soon as the saucer has begun to cool down, the alcohol fumes which fill the upper part of the vessel will begin to condense, and soon form visible clouds just below the saucer. In a moment longer the process of condensation will have reached a point when the liquefied alcohol begins to fall in a visible shower, straight downward to the surface of the still warm liquid. By using a microscope with, say, a three-inch objective, and the tube, arrayed horizontally, these drops may be seen and even approximately measured, the diameter being from 40 to 50 *mikrons* (a *mikron* is one thousandth of a millimeter), some being a trifle larger and some even smaller than these figures. If care is used this interesting spectacle may be made to last half an hour. At the commencement the vapors rise nearly to the under surface of the saucer, but gradually sink toward the level of the liquid as the vessel and its contents cool off, leaving a clear atmosphere above them as they descend.

This experiment places visibly before a class of school children, for instance, the whole phenomena of cloud formation, condensation, and of rain, exactly as they occur in Nature, with the single exception that the liquid is alcohol instead of water. Even the phenomena of the cyclone and of the rainbow may be introduced, the former by replacing the warm saucer with a cold one; and the latter by sending a beam of condensed light through the falling droplets.—*Der Stein der Weisen.*

Corsets.—

In many young girls chlorosis would not assume so grave a character if they were not subjected to the pernicious habit of wearing corsets. The best iron baths will have no effect whatever if the body is habitually squeezed into a corset. It is useless to induce deep respiration by bathing if, after the bath, free respiration is to be hindered by a corset. Of what use is it to excite the appetite if the stomach is squeezed? The defect in respiration results in troubles of the circulation as well as in cardiac obstructions and disturbances. The corset should be abandoned and a "wasp-waist" no longer considered the ideal of beauty. The knowledge of having a healthy body should facilitate the adoption of a new mode of dressing. Then it will be found that the intensity and duration of chlorosis will diminish, for gymnastic exercises and games have no value unless the body is able to move freely and without restraint. Then it will become so strong and erect that it will not be necessary to resort to a corset.—HIRSCH, in *New York Medical Journal.*

Clinical Records.—

A hedge doctor (a quack) in Ireland was being examined at an inquest on his treatment of a patient who had died. "I gave him ipecacuanha," he said. "You might just as well have given him the *aurora borealis*," said the Coroner. "Indade, yer honor, and that's just what I should have given him next, if he hadn't died."—*St. Thomas Hospital Gazette.*

Cocaine in Tetanus.—

Cocaine was prescribed in the usual sized dose for a Mexican boy, about twelve years old, who had tetanus, but the druggist by mistake gave ten times the amount. This was not known till after the remedy had been given, but the result was complete recovery. The same was tried in another case with a similar result.—BOWMAN, in *Medical World.*

To Silver Aluminum.—

In 1000 parts of distilled water dissolve twenty-five parts of zinc chloride and the same amount of zinc iodide, and add fifty parts of glycerin. Immerse the aluminum article in this bath for a short time, remove, wash, and then plate by any of the usual methods.—*Le Photographe.*

No Wonder!—

A local paper, speaking of a street accident, says: "Doctor Jones was quickly summoned, who, after examining the patient's purse, decided that the case was hopeless."—*New York Medical Times.*

Statue of Pirogoff.—

A statue of the Russian surgeon, Pirogoff, was unveiled at Moscow during the meeting of the International Medical Congress.—*Medical Chronicle.*

Book Reviews.

A Manual of Legal Medicine. By Justin Herrold, A.M., M.D. Cloth; pp. 678. J. B. Lippincott Co., Philadelphia.

The object of a great majority of medico-legal students is not so much to familiarize themselves with minute details of facts or theoretical discussions, as to understand the great principles of medico-legal science and the leading facts which serve for its foundation. To facilitate the accomplishment of this purpose is the object of the present work. In preparing it the writer makes no pretension to originality, nor does he purport to give information that is in itself entirely new; but he has prepared a volume of medium size in which attempt has been successfully made not only to embrace the contents of more elaborate and classic works, but to present, together with original material hitherto unpublished, the whole condensed into a comparatively small but not too scant space.

In the present volume will be found everything that is practical and useful, while all idle and superfluous questions which are still *sub judice* are dispensed with. The art of simplification has been practised to such an extraordinary degree by the author that any person possessing ordinary intelligence can read the work with benefit.

The book is divided into two parts, the first relating to Toxicology; the second to Forensic Medicine proper. The first two chapters furnish medical and legal definitions of Poisoning, together with accounts of Administration, Effects, Absorption, Antagonisms of same, Relation to Poisoning in the Living, Symptoms, Diseases Simulating Poisons and General Treatment. Then follows Evidences in the Dead Subject; Rules and Duties to be Observed in Poison Cases, and the Classification of these Substances; Poisons formed during the Processes of Decomposition—ptomaines and other putrefactive poisons; Embalming in its Medico legal Aspect; General Discussion of Poisonous Drugs. In the second part the Powers and Duties of Coroners are defined, which also includes the Criminal Court; Evidence of Ordinary or Expert Witnesses; Dying Declarations; Phenomena and Signs of Death; Presumption of Death and of Survivorship; Hairs and Fibres; Burns and Scalds; Death by Heat, Cold, Starvation; Railway Injuries; Feigned Diseases; Pregnancy; Criminal Abortion and Infantile Legitimacy and Inheritance; Impotence and Sterility; Rape; Life Insurance; Medical Malpractice; Medical Examination of the Living; Medico-legal Autopsies; Personal Identity; Blood Stains; Medico-legal Consideration of Various Forms of Wounds; Violent Deaths from Different Forms of Apnœa; Medico-legal Aspects of Electricity.

The table of contents and the index have been prepared with such extreme care that detached pieces of information may readily be discovered.

Proceedings of the Association of Military Surgeons of the United States. Volume VII, 1897. Edited by James E. Pilcher, M.D. Cloth; 8vo; pp. 694. The Berlin Printing Co , Columbus, Ohio.

The report for 1897 and 1898 presents a very interesting series of papers. Aside from the minutes of the meeting and the addresses, John C. Wise, of the U. S. Navy, presents a paper on "The More Efficient Organization of the Medical Department and Our Ships of War." "The Work of the Medical Department on Naval Vessels" is by C. A. Siegfried; "The Practical Disinfection of Ships of War," by T. C. Craig; "Some Practical Points on Antisepsis in the Navy," by G. W. Woods; "Venereal Diseases in the Navy," by R. Percy Crandall. Three papers on "Identification of the Soldier" are by Charles H. Alden, George W. Adair, and Paul R. Brown. "Clothing and Accoutrements" are treated by W. S. Oliver and George Halley. Under the heading of "Military Physical Training" are presented four papers, respectively, by H. G. Beyer, U. S. N., John S. Kulp, U. S. A., Albert Westervelt, and Henry S. Kilbourne. "The Military Medical Officer" is treated by A. A. Woodhull and L. B. Almy; "Sanitary Work in the National Guard" is treated by J. La Pierre, J. K. Weaver, Charles H. French, Gilbert I. Cullen, J. J. Erwin, Clayton Parkhill, and L. H. Kemble; "Transportation of the Disabled" is discussed by H. McI. W. Moore; "Medical Service in the Field," by H. A. Arnold, H. R. Tilton, and Henry P. Birmingham; "The Service of Aid to the Disabled," by J. Van R. Hoff, J. E. Pilcher, and J. J. Erwin; "Military Surgery," by J. M. Banister, W. C. Borden, J. D. Griffith, Edward Martin, and Lewis S. Pilcher; "Instructions in Military Medicine and Surgery," by A. A. Woodhull, Captain Rory Fletcher, Eighth V. B., King's Royal Rifles, and George M. Kober; "Military Medicine," by G. H. Penrose and M. O. Terry; "Foreign Military Sanitary Matters," by Lewis M. Maus and Charles H. Alden. As a whole the volume is a most interesting one, and in the main very practical as to papers.

A Manual of Clinical Diagnosis by Microscopical and Chemical Methods. By Charles E. Simon, M.D. Second Edition. Cloth; 8vo; pp. 563. Price, $3.50. Lea Brothers & Co., Philadelphia.

The demand for a new edition of this book within a year is not only an evidence of its value but an encouraging sign of the wide-spread interest in one of the most creditable developments of modern medicine. The time is past when it is advisable for any professional man to trust his patients or his reputation to any admixture of guesswork in diagnosis. Nothing less than certainty is the requirement of the time, and fortunately science can now furnish the physician with practical methods which reduce uncertainty to a minimum. Simon has enjoyed the advantages of

the best European laboratories as well as those of his connection with the Johns Hopkins Hospital, and he is accordingly well qualified to present a thorough and authoritative treatise on the approved chemical and microscopical methods of identifying disease. He has given full directions to enable even those unfamiliar with such procedures to obtain satisfactory results. His work has reached a foremost place in a year, and its popularity has enabled the author to give it the benefit of a thorough revision. The illustrations and colored plates are noticeable for beauty and instructiveness.

THE PHYSICIAN'S PERFECT CALL LIST AND RECORD. By Doctor G. Archie Stockwell, F.Z.S. Flexible morocco; long 66mo; pp. 200. Price, $1.50. William M. Warren, Detroit.

The fact this publication has reached its twelfth year is sufficient evidence of its increased popularity and practical usefulness. Its paper and binding are alike superb. In size and shape it is by long odds the most convenient and the best of the "Visiting Lists," and moreover it will not crumple or break down in the pocket.

A prominent feature is the absence of all advertisements and other "dead wood," and the extremely convenient arrangement of its most practical contents. Of the information afforded that most demanded for ready reference is to be found upon the inside covers or on the fly leaf; and the posological table of doses has been entirely rewritten and brought up to date, so that it is most thorough and complete.

Especially commendable is the Obstetrical Table in two colors, and the arrangement for the concise keeping of all accounts, credits, debits, profit and loss, etc. No physician can afford to be without this work.

TEXT-BOOK OF NERVOUS DISEASES. By Charles L. Dana, A.M., M.D 8vo; pp. 640. Price, $3.50. William Wood & Co., New York.

We are pleased to announce a fourth edition of this well known work. The volume has had a very complete revision and has been entirely rewritten in many parts. The chapters on the Microscopical Anatomy of the Nervous System and on the Anatomy of the Spinal Cord and Brain are new, and have been made to conform more completely with the present views regarding the importance of the neuron. The chapters on the Peripheral Nervous System have also been rewritten and rearranged. Again, we discover the articles on Acute Encephalitis, Multiple Sclerosis, combining Sclerosis and Neurasthenia, are new; moreover, a chapter on Alcoholic Meningitis has been added to this last edition. The volume as a whole is very complete, concise, and instructive. The author especially disclaims any attempt to make it encyclopedic, but wishes it to be understood that it is intended rather as a compendium suitable for quick and ready reference.

CUTANEOUS MEDICINE. By Louis A. Duhring, M.D. Volume II. Cloth; 8vo; pp. 272 (223 to 494). J. B. Lippincott Co., Philadelphia.

The second part of this work deals with the classification of anæmias, hyperæmias, and inflammations. It is very complete, fully up to date, and profusely illustrated—in fact the illustrations are of a better character than ever observed in a work of this kind heretofore. It is sufficient to say that the text fully bears out the reputation which the author has already attained in the pathology, treatment, etc., of cutaneous diseases.

THE YOUTH'S COMPANION. Price, $1.75 per year. Perry Mason & Co., Boston.

Fifty-two times a year this unequaled family paper goes into the homes of every one of its subscribers. Fifty-two times a year it brings to the fireside the best thought of the best minds in Europe and America. Coming every week, there is a delightful freshness and timeliness to its contents. *The Companion* keeps always in touch with current events. Its editorial utterances and its notes on new topics of interest in Nature and science are always abreast of the times. Fifty-two numbers are scarcely sufficient to contain all the stories, special articles, and other reading already provided for *Companion* readers during 1898.

Among the eminent writers for the new volume whose contributions are already in hand are Mr. Gladstone, Lord Dufferin, Speaker Reed, the Duke of Argyll, Senator Hoar, Senator Lodge, Justin McCarthy, Professor Shaler, John Burroughs, Percival Lowell, Rudyard Kipling, W. D. Howells, Mary E. Wilkins, Captain Mahan, and Lieutenant Peary

Present readers of *The Companion* who renew their subscriptions and new subscribers will receive free a beautiful gold-embossed calendar, printed in twelve colors. It is one of the richest and costliest calendars ever printed. Those who subscribe now will receive *The Companion* every week from the time the subscription is received until January, 1899. A handsome illustrated announcement of *The Companion's* contents for 1898 will be sent free to any one soliciting the same.

A BEAUTIFUL CALENDAR. Perry Mason & Co., Boston.

To buy and reproduce famous paintings involves an expenditure that could hardly be borne unless, as in the case of *The Youth's Companion*, the enterprise is sustained by the approval of more than five hundred thousand subscribers. *The Companion's* Souvenir Calendar for 1898, a series of charming figure-pieces, faithfully copied in colors and embossed in gold, is recognized as one of the richest and most costly examples of this form of art Yet every new subscriber receives it without additional charge. Moreover, the paper is sent free to new subscribers every week from the time the subscription is received until January, 1898, and then for a full year to January, 1899.

The popular price of *The Companion*, $1.75 a year, and the character of its contents, make it a paper for every household. Exceptional attractions are promised for the fifty-two numbers to be issued during 1898. The Right Honorable W. E. Glad-

stone, the Honorable Thomas B Reed, Rudyard Kipling, Lillian Nordica, John Burroughs, W. D. Howells and Max O'Rell are prominent in the long list of eminent contributors named in *The Companion's* announcement.

SCRIBNER'S MAGAZINE. Price, 25 cents; $3.00 per year. Charles Scribner's Sons, New York.

Good fiction and abundant and novel illustrations are the features of the Christmas nnmber. The cover is an odd and effective design in color by Maxfield Parrish, a young Philadelphia artist. Henry van Dyke writes of "A Christmas Loss," a tale of Antioch fifteen hundred years ago. Joel Chandler Harris, through Uncle Primus, tells a story of days long before the war. Another Southern story, "Point of Honor," is told by Sarah Barnwell Elliott. Other short fiction is Robert Herrick's tale of Americans in Paris, entitled "A Pension Love-Story." "A Guilty Conscience" is by William M. Browne; a story of the trials of a Minor Author, entitled "The Martyrdom of Fame," is by Clara E. Laughlin. Cosmo Monkhouse gives a biographical and critical account of the artistic achievements of Sir Edward J. Poynter, President of the Royal Academy. "The Workers" (v) is by W. A. Wyckoff. There are the usual poetry and departments.

LIPPINCOTT'S MAGAZINE. Price, 25 cents; $3 00 per year The J. B. Lippincott Co., Philadelphia.

The complete novel in the December issue is "Poor Chola," by Julia P. Dabney. "Gold-mining in North America" is by George E. Walsh; "Who Are the Greeks?" by W. A. Curtis; "Dr. Felix," by Francis Lynde; "Egyptian Queens," by Leigh North; "The Club Movement Among Women," by Emily Tolman; "The Red Light," by Joseph A. Altsheler; "A Forgotten Grace," by Annie S. Winston; "Uncle Sam's Four-footed Friends," by Charles D. Rhodes; "The Consolation of Gamaliel," by Marion Manville Pope; "Beards and Barbers," by Francis J. Ziegler; "Some Literary Shrines of Manhattan" (II), by Theodore F. Wolfe. There is the usual poetry.

ST. NICHOLAS. Price, 25 cents; $3.00 per year. The Century Co., New York.

In the December issue Rudyard Kipling begins a series of "Just-So" Stories. Ruth McEnery Stuart writes of "An Old-time Christmas Gift;" "The Buccaneers of Our Coast" (v) is by Frank R. Stockton; "Cousin Jane's Mistake," by Mary Bradley; "The Court Jesters of England," by Amelia Wofford; "The Christmas Ship," by H. H. Bennett; "The Lakerim Athletic Club" (I), by Rupert Hughes; "Two Biddicut Boys" (I–IV), by J. T. Trowbridge; "With the Black Prince" (II), by William O. Stoddard; "Some Russian Games," by P. Kitty Kondacheff; "The Purloined Christmas," by Gelett Burgess. There are the usual poetry and departments.

THE CENTURY. Price, 35 cents; $4.00 per year. The Century Co., New York.

The Christmas number is replete with interesting articles, the principal ones being: "Merry Christmas in the Tenements," by Jacob A. Riis; "A Religious Painter," by W. Lewis Fraser; "Good Americans" (II), by Mrs. Burton Harrison; "The Author of 'A Visit from St. Nicholas,'" by Clarence Cook; "Cole's Old English Masters," by John C. Van Dyke; "The Causes of Poverty," by Francis A. Walker; "Pat Mullarkey's Reformation," by Henry van Dyke; "Tennyson and His Friends at Freshwater," by V. C. Scott O'Connor; "Edwin Booth in London," by E. H. House (which includes letters by Edwin Booth); "Hepzibah's Mothering," by Marion Manville Pope; "Hawthorne in Berkshire," by R W. Gilder; Rubáiyát of Doc Sifers (Part II), by James Whitcomb Riley. There are the usual departments.

GODEY'S MAGAZINE. Price, 10 cents; $1.00 per year. The Godey Company, New York.

The December number is profusely illustrated. In this issue begins the series of "Triumphs of Amateur Photography," the opening subject being the superb work of Alfred M. Stieglitz. "American Concert Singers" is by Rupert Hughes; "Beautiful Corfu" is a series of reproductions from the paintings of Doctor John Rafter. The fiction consists of three strong new tales, and a number of bright, short sketches, in various veins. Other topics are: "The History of Playing-Cards;" an essay on the life and works of "A Forgotten Poet;" a critique on "The Christian" of Hall Caine; and "A Christmastide Reverie." There are the usual poetry and departments.

BIRDS. Price, 15 cents; $1.50 per year. Nature Study Publishing Company, Chicago.

No. 4, Volume II (October), is before us. The opening article, "Birds in Captivity," is by C. C. Marble. The illustrations are: "Blackburnian Warbler," "American Goldfinch," "Chimney Swift," "Horned Lark," "Sapsucker," "Warbling Vireo," "Wood Pewee," "Snowflake," "Junco," and "Kingbird," with full description of Range, Nest and Eggs of each. With every issue this periodical is more and more to be admired, not only for its perfection in representation and coloring, but also for its value as an educator of both children and adults.

MIND. Price, 20 cents; $2.00 per year. The Alliance Publishing Co., New York.

In the December number Swami Saradananda writes of "The Theory and Practice of Vedanta;" Ursula N. Gestefeld of "In the City of David;" Charles B. Patterson of "The Imaging Faculty" (III); "Where is the Kingdom" is by Ezra Norris; "Spirit and Matter Identical," by Mary P. Parmele; "The Utility of Physiognomy," by Holmes W. Merton; "All Phenomena Facts of Consciousness," by B. F. Underwood; "Failures of the Ages," by Bolton Hall; "A Daughter of Love" (serial), by Julian Hawthorne.

THE STRAND MAGAZINE. Price, 10 cents; $1.00 per year. George Newnes, Limited, London.

The principal articles in the December issue are: "The Amphibious Boat," by J. W. Smith; "A Romance of Four Wheels," by Catherine Adams; "The Champion Jumper of the World," by Oswald North; "A Little Scrap of Melody," by Helen Boddington; "Fireworks of the Past," by Alfred Whitman; "The Peaches," by André Theuriet; "Pests," by Warren Cooper; "Wrecks," by William G. Fitz-Gerald.

Therapeutic Brevities.

A Pleasant Laxative.—

℞ Ginger, 2 drachms.
Cinnamon bark, 2 drachms.
Coriander, 2 drachms.
Caraway, 2 drachms.
Fennel, 2 drachms.
Orange peel, 6 drachms.
Podophyllum, 1 ounce.
Anise, 1 ounce.
Alexandria senna, 12 ounces.
Tartaric acid, 1 ounce.

All the ingredients except the acid are ground for percolation; twenty-five per cent. alcohol is used as the menstruum. Proceed in the same manner as for fluid extracts. To one pint of fluid extract thus prepared, add one ounce of tartaric acid.—KLIE.

Diurnal Incontinence.—

℞ Extract rhus aromatica, ½ drachm.
Extract ergot, 6 drachms.
Extract belladonna, ½ drachm.
Potassium bromide, 2½ drachms.
Sodium bromide, 2½ drachms.
Strychnine sulphate, ⅓ grain.
Syrup bitter orange peel, sufficient to make 4 ounces.

Teaspoonful for a child five to six years old.

After a faithful trial of this, increasing the dose of ergot and of the bromides, I would recommend the following:

Acetanilid, 1 grain.
Sodium bromide, 10 grains.

Take four such powders in a day.

—WARE.

Hoarseness in Singers.—A light purgative, moderate diet, baked apples; spray throat with:

℞ Cocaine hydrochlorate, 15 grains.
Strychnine sulphate, ¾ grain.
Distilled water, 1500 grains.

and give as pastilles to dissolve in the mouth:

℞ Cocaine hydrochlorate, ¾ grain.
Tincture aconite, 10 minims.
White sugar and marshmallow, sufficient to make eighty pastilles.

An hour before going on the stage, the singer is to take five strychnine granules of one milligramme each.—RICARDO BOTEY.

Lupus and Potassium Permanganate.—The powder freshly prepared from dehydrated dried crystals is applied in a layer, three to five millimeters in thickness, over the whole surface of the lupus and the suspected portions of surrounding tissues. In case of deeper ulcerations with undermined edges, the powder is applied after curetting two or three times in order to level the uneven surface. In all cases a layer of medicated cotton is superimposed to keep the powder in place, absorb the secretions, and eliminate material. In most cases a single application suffices. I have employed the powder now in more than thirty cases since 1878, and always with complete success.—DOCTOR KACHANOVSKY.

Tetanus.—

℞ Chloral hydrate, 4 drachms.
Syrup orange peel, 12 drachms.
Water, to make 3 ounces.

Dessertspoonful as required.

℞ Powdered opium, 1 drachm.
Powdered camphor, 15 grains.
Simple cerate, 4 drachms.

Rub the parts affected with the spasm.

℞ Cocaine muriate, 12 grains.
Morphine muriate, 12 grains.
Distilled water, 1 ounce.

Twenty to sixty minims hypodermatically, as required.

—*Dominion Medical Monthly.*

Hair Tonic.—Herbert Skinner, pharmacist to the Great Northern Hospital of London, points out that lanolin will mix with its own weight of liquid extract of quillaia, or this can be replaced with water containing one grain of saponin in each drachm, a few drops of rectified spirit keeping it as a creamy liquid. Many substances can then be mixed with it, as in the following formula:

℞ Salicylic acid, 15 grains.
Resorcin, 30 grains.
Tincture cantharides, 4 drachms.
Tincture capsicum, 1 drachm.
Saponin, 1 drachm.
Lanolin, 1 ounce.
Rose-water, to make 10 ounces.

Melt the lanolin, dissolve the saponin in the same quantity of water, incorporate the two. Dissolve the acid and resorcin in the tinctures and rose-water, respectively; make up the required bulk.

—*Treatment.*

Vomiting of Pregnancy.—Oxygenated water is strongly recommended for the vomiting of pregnancy, taken at meals, using ordinary water or water mixed with wine, containing from a teaspoonful to a tablespoonful of a ten volume hydrogen dioxide solution per liter. In five cases the vomiting, anorexia and feeling of weight in the stomach soon subsided. At first these symptoms reap-

peared as soon as the medication was suspended, but they were ultimately dispelled by a sufficiently prolonged treatment.—BRIEND, in *The Lancet* (London).

Urethral Fever.—Death from acute sepsis has been caused by the passage of an unclean instrument into the urethra. In some cases the administration of a few doses or a full dose of quinine a few hours before passing a sound will often serve as a prophylactic. It is advisable to give the patient five drops of true oil of wintergreen six hours before and immediately upon the passage of the instrument. Copious draughts of water to dilute the urine will also act as a prophylactic.—*International Journal of Surgery.*

Purulent Infantile Conjunctivitis.—

℞ Hydrastine sulphate, 5 grains.
Boric acid, 5 grains.
Borax, 5 grains.
Deodorized tincture of opium, 30 minims.
Distilled water, 1 ounce.

Mix and filter.

This should be injected under the lids every hour, the eyes still more often cleansed with tepid water, and vaselin applied to the edges of the lid every night.—*American Journal of Ophthalmology.*

Oil of Turpentine in Acne.—A man who was using a turpentine embrocation for his chest found that it did him so much good that he thought he would rub it on his face, which had a big spot of "incurable" acne. He smarted for it at the time, but to his own and his doctor's astonishment the acne disappeared.—*Quarterly Therapeutic Review.*

[The remedy is an old one, and often most efficient.—ED.]

Scarlatina.—

℞ Acetanilid, 15 grains.
Powdered white sugar, 30 grains.

Make ten powders; one to be given as required to relieve fever, for a child of three or four years.—WIDOWITZ.

℞ Carbolic acid, 20 grains.
Thymol, 10 grains.
Vaselin and simple cerate, each ½ ounce.

Rub in well.—STARR.

Psoriasis.—When this extends over large isolated areas a twenty-five-per-cent. solution of chrysarobin and liquid gutta-percha will act admirably. The solution hardens on the surface and may be left until it wears off, when it should be again renewed. The treatment is counter-indicated on the face or scalp, owing to the tendency to produce irritation to the delicate integument and to the discoloration it produces.—*North American Review.*

Hagar-Brand's Olfactory.—This medicinal inhalant is a remedy very popular in Germany. It is composed of:

℞ Carbolic acid, 5 drachms.
Strong liquor ammonia, 5 drachms.
Alcohol, 2 ounces.

It must be kept in a dark place or in a tinted glass bottle. It may be used the same as smelling salts if required.—*The Practitioner.*

Gonorrhœa in Women.—In gonorrhœa, urethral and vesical irrigation should be made with a solution of potassium permanganate, 1 per 1000 to 1 per 2000, according to the case. The quantity at each irrigation should be at least one liter. The irrigation should be practised every day, the usual duration of treatment being from ten days to two weeks or thereabout.—CUMSTON, in *Medical Record.*

Pigmentary Blemishes of the Skin.—The *Journal de Médecine de Paris* for September 26th gives the following formula:

℞ Corrosive sublimate, 7½ grains.
White sugar, 225 grains.
The white of one egg.
Lemon-juice, about 450 grains.
Distilled water, 3750 grains.

To be applied every morning and allowed to dry on.

General Malaise.—For the nervous and general malaise of the menopause, employ:

℞ Ammonium bromide, 2 drachms.
Sodium bromide, 4 drachms.
Aromatic spirit of ammonia, 6 drachms.
Camphor water, sufficient to make 6 ounces.

A tablespoonful every four hours.

—PARVIN, in *Medical Council.*

Thuja.—Thuja, in doses of from five to seven drops, is the best remedy to control seminal emissions that I ever tried. A remedy that will control excessive seminal emissions without injury to the patient is a welcome addition to the medical armamentarium, and thuja is worthy of a trial for this honor.—ROBERTS, in *Medical Summary.*

Administration of Sodium Salicylate.—

℞ Sodium salicylate, 90 to 120 grains.
Syrup of bitter orange peel, 2 ounces.
Distilled water, 2 ounces.
Curaçoa, 1 ounce.

This amount to be taken in the course of twenty-four hours, each dose in a small glass of carbonated water.

—Bricemoret.

Tympanites.—

℞ Turpentine, 1 drachm.
Oil sweet almonds, 4 drachms.
Tincture opium, 2 drachms.
Mucilage gum Arabic, 5 ounces.
Cherry-laurel water, 4 drachms.

A teaspoonful every six hours.

—*Medical Press and Circular.*

Epilepsy.—

℞ Zinc oxide, 1½ grains.
Powdered valerian, 1½ grains.
Powdered belladonna, ⅛ grain.
Soap, sufficient quantity.

Four such pills to be taken daily.

—*La Médecine Moderne.*

For Asthma.—

℞ Fowler's solution, ½ drachm.
Fluid extract euphorbia pilulifera, 1 drachm.
Potassium iodide, 2 scruples.
Syrup roborans, sufficient to make 4 ounces.

A dessertspoonful every three hours.

—*Exchange.*

Bronchitis.—

℞ Potassium citrate, 4 drachms.
Lemon-juice, 8 drachms.
Syrup ipecac, 2 drachms.
Water, to make 3 ounces.

Half ounce four or six times a day for an adult.

—H. C. Wood.

Angina Pectoris and Cardiac Dilatation.—Cardiac dilatation is a conservative process in true angina, the increased space thus afforded acting as a kind of safety valve; the attacks of pain, moreover, disappear with the progress of the dilatation.—Musser, before the Congress of American Physicians.

Ivy Poisoning.—Apply Labarraque's solution (chlorinated soda) in strengths varying from fifty to one hundred per cent., according to the severity of the attack; use the smaller percentage in the erythematous, and the stronger in the vesicular, manifestation.—Cantrell.

For Migraine and Neuralgic Headache.—Use fluid extract of gelsemium and fluid extract of cannabis indica, of each three drops, which can be increased in drop doses to five drops each, three times a day, until the physiological action of the drugs appear.—Eshner.

Freckels and Sunburn.—

℞ Acetate of lead, 15 grains.
Dilute prussic acid, 20 minims.
Alcohol, 4 drachms.
Water, sufficient to make 6 ounces.

Apply with a sponge.

—Tilbury Fox.

Sciatica.—Three cases of obstinate chronic sciatica were cured in a brief period under administration of forty to fifty drops of copaiba daily, divided into several doses and taken on wafers.—Glorieux, in *Journal American Medical Association.*

The Dangers of Plasters.—Comby warns against cantharidic vesication in children. The symptoms suggested the existence of meningitis. These symptoms disappeared after a period of fever when convalescence was established.—*New York Medical Journal.*

Asafœtida.—The tincture, combined with milk of magnesia, furnishes the best remedy for colic due to intestinal acidity. As a diffusible stimulant in catarrhal pneumonia and capillary bronchitis it is exceedingly valuable. —*Pediatrics.*

Hæmaturia.—When this arises from renal disease it has been found that two drops of thlaspi (capsella) bursa pastoris (shepherd's purse) every two hours acts very promptly.

Incontinence of Urine.—*Rhus aromatica* is a valuable remedy in atonic condition of the bladder and its sphincter.—*Medical Summary.*

Capsella Bursa Pastoris.—This is recommended as a great kidney remedy in doses of five to ten drops of the saturated tincture.

Cineraria in Cataract.—I have used this in several cases, but with no success. Its value is doubtful.—W. R. King.

Epistaxis.—The local use of freshly expressed lemon-juice is a most efficacious remedy.—Fruitnight.

Medical Progress.

THE JUDICIAL MIND IN MEDICINE.—Having heard the evidence of the various witnesses in respect to the present state of medicine, we must acknowledge its character appertains to the chaotic. The *savants* of this enlightened age may well blandly smile at Galenic simplicity on account of the electuaries of viper's flesh, which once held their ground; at Hippocrates, who taught with the earnestness of his heart that the function of the right testis was to furnish males, and the left females; at the physicians of the "erudite" age, who gave pomegranate seeds for toothache because these seeds resembled teeth; nay, even at the illustrious Paracelsus, who prescribed the moss growing on the head of a thief. And what was it which distinguished our forefathers' views? Surely their cock-sureness of their truth. Yet will not the followers of the nineteenth century doctors have some reason to develop their zygomatici? Will that bright pioneer be crowned a hero, or dubbed a simpleton, who first searched in Tyrol mines for reptilian deposits for ulcerated wombs or thought of the ground-down livers of cocks and hens for emesis? On what pedestal will he rest who rehabilitated organotherapy? Who first gave Fallopian or prostatic extracts? or went to the dogs for serum? The pomegranate seeds offered the bait of suggestion, and I submit that suggestion, and its parent bias, even now, lead the faculty into innumerable errors. Yet surely the ancients were not so simple in contrast with ourselves as some would think. In Galen's time every disease was thought to be due to relaxation or constriction; afterwards to acidity or alkalinity of humors or to fermentations; again, to obstruction of pores or minute vessels; again, to diminished vitality or excess of irritation. I would ask, can you improve much on these theories now? Most of your treatment is virtually tonic or sedative. Is not pain itself tension? Were not intubation and nephrotomy done at the time of Hippocrates? Did not Praxagoras advise laparotomy and enterectomy? Heliodorus do internal urethrotomy? Are bacilli, micrococci or wandering spirilla very modern acquaintances? By no means; they were known in 1683.

The most beneficent aids you now possess were ridiculed a short time ago. Among what throes did vaccination, the story of the circulation, anæsthesia, and other great advances become establshed? Of the discoverers of anæsthesia, that greatest gift ever bestowed by science, it may be said, those who deserved crowns were allowed to die the death of suicide, or live in bankruptcy of heart and pocket. Yet, in your fetish worship, you place laurel wreaths on more ignoble brows, and martyr, even now, the prophets who are too honest to be orthodox. The stethoscope, the microscope, the laryngoscope were but yesterday mere scientific toys. Before 1866 you did not know what fever heat was. Medicine is in its baby clothes, and the child is being reared badly.

Myopia has already developed.

"What is truth?" was the most pertinent question ever asked. Truth is the rarest of gems in the motley mines of so-called knowledge. You have to search for one little truth—and are lucky if you find it—all through a lifetime. Huge piles of knowledge are built, but there is no one to focus or analyze it for practical use. How long would it take you to localize a cerebral tumor from a study of the 447 papers written on brain sulci and gyri?

The life of most medical and physiological facts seems to be some half-dozen years. Idiopathic peritonitis, a few years ago a very common disease, is now a myth; so is the "fact" that an acute angle formed by the neck of the senile femur with the shaft conduces to fracture; and a hundred other things. "Opportunity and experience are fleeting," said Hippocrates, and what permanent new stones have the very best of us placed as the edifice of knowledge? Work a lifetime, unenlightened by the past, and you will scarce discover that your toe-nails grow; and, said Abercombie, "He who has confidence in his own experience as a test of probability characterizes a mind confined in its view, and limited in its acquirements." The physiology of the cell alone is too much for one life. Just think; the hand which dexterously removes a calculus belongs not to you, but to some dead Liston; the ear which distinguishes intrathoracic sounds to some dead Cullen. The dead reign. The observations which gave you mercury cost centuries, and yet you are uncertain about it; and yet, also, at the word of every enterprising chemist you swear by every lauded drug. Some of your eminent men would swear that syphilis is as innocent as a common cold.

All things considered, the medical mind ought to be full of precedent and current knowledge, for, as Sir W. Gull fitly used to say, "ignorance is the cruelest thing in life." Yet, as Celsus said, "doctors are made by experience, not by reasoning," "a grain of fact is worth a pound of reason;" and they would do well to remember that the senses

are, as Aristotle pointed out, the only avenues to the mind. Personal acquisition, enriched by the heirship of the mighty past and the teaching of the present, avoiding ruts, yet perhaps, as man is an image worshiper, setting up but on it some living model of excellency: eager to assay and focus knowledge, avoiding extremes or precipices—this should be the medical mind. Is it this?

The hand, instead of being in concert with or directed by the brain, is too often urged by an impulse which renders skill automatism, and impulse itself the usurper of judgment. In your eagerness to know the use of drugs you ignore indications. In your race after the abnormal you forget the phases of the normal. You judge from preconceptions before you hear or sift evidence and mistake statements for facts. You allow names to govern things, and confound cleanliness with Listerism, abstractions with entities, symptoms with coincidence, cause with effect, induction with deduction, and utterly supplant by art *vis medicatrix naturæ*.

What real good do your huge out-patient departments do where you keep pace with the flying Childers by seeing a patient per minute? And yet you are too selfish to allow other eager laborers to share your work. Is not the vast bulk of that work wearing and needless? A treatment of rum-and-tea dyspepsia and flatus by stimulants of poverty appetites, which in turn stimulate larceny to appease them?

If you wish, I can hire a man to swear a woman is best off with one ovary, and another to confront him and swear Nature was right in allowing her two, as surely as I can show you men set on the top rung of the professional ladder by a frog or a monkey, or the resuscitated corpse of some ancient fad—such are the enigmas of medicine. The present can judge only the past, not the present; and are you sure, spite *x*-rays and organ therapy, that you are progressing, not circulating? Curetting, nephrotomy, enterectomy, laparotomy, urethrotomy, intubation, the drainage tube, etc., are rejuvenescent corpses. Let us hope that venesection, which for thousands of years held its ground, will, like them, return. Whether is it better to whip the horse or lighten the load? Do you never whip the powers to death?

We often find, if a man has, say, a successful case of excision of the gall-bladder, he is said to have a hundred per cent. of successes. At a not very remote meeting of one of our societies a physician stated phthisis was rare amongst the hunchbacked; *ergo*, one might say being hunchbacked was an antidote to phthisis. This reasoning fits in with the conundrum, "Why do black sheep die less often than white?"

Coming to the case of conscience and unconscious criminality, I would say not only are ignorance and carelessness criminal, but there are certain shortcomings in practise which we cannot omit. Most will agree "there are more mistakes made by not looking than by not knowing," and more disaster caused by not doing a thing well than by not doing it at all. To leave nothing undone; to exercise the most infinite care from first to last with those whose lives are in your hands ought to be done. Is it done? You do your operations well, but you allow your patient to slip through your fingers from inattention to "little things" or from ignorance of diet or drugs. Again, enthusiasm is splendid, but are you as anxious for the patient's welfare as your own name? Do you do to others as you would have done to you? Do you always examine the heart before giving chloroform? Have you studied the best means of giving it, or are you captive to some petty fad? Has Snow lived in vain? Are you aware chloroform kills once in 2300 times, whilst ether kills once in 13,500 times only? Do you inquire into renal adequacy before operating? Are you broad-minded or sympathetic enough? I trow not.

It has been my own lot to witness many sad results of precipitate operations by clever but not very judicious men, who, seeing a case perhaps for the first time, take no just cognizance of the true and tell-tale history of its past, and send it or hurry it to the grave. I have frequently seen young men scrub the abdomen, with gusto, they were about to open, until every bacteria was uprooted from its cutaneous domicile, and at last sweat so at the operation that great drops fell from their germ-clad nose-tips into the wound or peritoneum.

Do you consult enough? Are you earnest enough? 'Tis said there is an operative mania. Two gentlemen lately writing in a medical journal describe their operation thus: Castration for Enlarged Prostate. "Each of us removed a testis." The medical mind might have suggested a single incision. A friend of mine suggests a geological classification of the future—'tis fish, bird, reptile, mammal, eunuch.

Coming to specialism, although the illustrious Abernethy regretted the divorce of medicine from surgery (which, by the way, took place as early as the seventh century, by reason of the prohibition of the spilling of blood by the ecclesiastics), yet specialism is necessary since *ars longa, vita brevis*, were the specialist the all-round man he ought to

be, and not like that clergyman who saw a church in the moon, or the butcher who saw an ox.—By the way, do two persons ever see the same image in this luminary? Do they see it out of it? Years ago I witnessed a valuable life lost because a president of a college of surgeons insisted on doing his favorite colotomy in a case whose obscurity demanded laparotomy.

Is it not the brain which in reality sees and smells, and not the sense organ? and yet we excuse the oculist and rhinologist, etc., for not knowing much beyond their limited fields. Sympathy chains all our parts in fast bonds, just as it ought to chain us to our patients, and to each other. Here is a story my *poet* friend got hold of: "Here is a simple story and without one gloss or glory, Hailing from a distant but a great Atlantic town, 'Tis of a fellow seeking, at a hospital came seeking, A certain diagnosis from a surgeon of renown; And the reason he had sought him, the reason that had brought him, Was his great toe was swollen, and he couldn't walk. A very simple reason, a quite sufficient reason, So on this matter further we needn't dwell or talk. But the surgeon found the matter not quite a simple matter, And turning to the students this was his remark: 'Gentlemen, this toe you see is quite a puzzler to me, We'll send him to the specialists to light up what is dark.' Then to the oculist he went, to the oculist was sent, And the diagnosis of that specialist was most Myopic, astigmatic, walks and looks a bit erratic, Suggestion not unlikely struck his toe against a post. Go and see the aurist; diagnosis of the aurist: Labyrinthine left acousma, anchylosis of the bones; A tramcar may have passed him, on his deaf side may have cast him. Ran over his swollen digit or bruised him on the stones.

"Next the gynæcologist, the wary gynæcologist, Examined all our patient, but concluded that the toe Was not for gynæcology, except that gynæcology Suggested a stray pessary might have caused the woe. Next the laryngologist and fledgling pharyngologist, Bladderologist rhinologist saw the puzzling case; There was nothing in the larynx, there was nothing in the pharynx, And nothing in the nasal parts they told him to his face.

"Next the surgeons of the abdomen, males and ripping women, Tried their skill at diagnosis, but they sounded a retreat; So did colotomists and splenic men, gall-bladder and phrenic men, And renal men, though they found a floating kidney in his feet. And perhaps the umbilicus was a fuller umbilicus Than they had met in practise, and about McBurney's point Was a wriggling on palpation demanding judication, And atasia, abasia of the pubic joint. So their duty was apparent, could not be more apparent; An exploratory incision should be made without delay. To clear up diagnosis, they must cut aponeurosis; But upon consideration our patient cut away. At last the urinary specialist, the nimble-fingered specialist, On searching back the history, found he had been cut for stone, And the sequence could not be plainer, not one iota plainer, The calculus had fallen and caused contusion of the bone!"

"Spaying (says some one) is a fox hunting." Does the rule. when in doubt operate, require alteration? *In medio tutissimus.* For, on the other hand, he who waits too long for his *medicatrix naturæ* allows life to slip away by *vis necatrix*, that I own; you are criminal in the fact of taking life solely in your own hands. To see clearly, and act wisely, we must live truly. Candidly, you live not truly; 35,000 of you are spread over the land, yet no laws bind or direct you.

In the case of Council *versus* Consultation, a thoughtful mind will see the faculty can be classed as follows: The men who treat theories: The men who treat the disease: The men who treat the patient: The judicial men who treat patient and disease. Again, there are those who, in feeding the patient, feed the disease, or in starving the disease, starve the patient. This reminds me of a young fellow who, on firing a gun at a magpie on a pig's back, shot the pig. It is almost needful for our *poet* to say: "Learn not only what to do, but do Learn also what you're not; this is true, Young men cure, but they may kill us, too." Grave's epitaph has its qualifications; often to feed the patient is to starve him. Cullen said there were more false facts than theories in medicine, and there is not one of you who has not some spoiling line of treatment; not one of you out of ruts, and, as the best advocates make the worst judges, so does the practitioner of obstinate bias the least judicial man, though I deny not that a truth found should be linked to the heart with "hooks of steel." One such truth is, I believe, that blisters to the joints, and plenty of alkalies internally, in acute rheumatism would save many a poor creature's heart from wreck. But we only listen to heroes, and truth must be gaudily attired, and proclaimed by bell and trumpet ere it is believed. 'Tis so with medicine and religion alike.

Yet some of the greatest truths in medicine came by the humblest means; not by synthesis or venesection, but from the folk-lore of old women and savages. Where would Jenner be but for the observations of a poor milkmaid? Is it not to the ingenuity of an

old friar we owe lateral lithotomy? and so on. The most wretched practitioner, whose broken-down heart dances at a fee of five shillings, could teach a Paget in something relating to his art. A consultation is rarely a council. It may be Jonah and the whale, yet Jonah is often greater than the whale. The ideal consultation would be that formed by two councilors and a sage, oldish judge, who would tell friends what he thought, provided friends bore in mind that the judge himself might be fallible. The judge, at least, might metamorphose the blunderbuss prescription into a rifle kind.

Coming for a moment to the case of Crustacean *versus* Young, I would explain that Crustacean is a professional gentleman of means living up to the high traditions of his calling—at least to the satisfaction of his conscience—and that his profession and himself are being dragged into the mire by the conduct of a party called Young, who belongs to the same profession and who prostitutes himself by his small fees and advertisements. Well were it if Crustacean's armor protective of his honor were as thick as his name implies. I lately saw three "gentlemen" coming from "The Laurels," the suburban residence of a Mrs. Tickler: one was the doctor who attended two of the children in convulsions, for which he was paid 2s. 6d.; the other was the vet., who got the same fee for prescribing for Pat the poodle; the last was the sweep, who got the same also for attending to two chimneys.

Hurried or worried, too often afflicted like those he tries to succor, no wonder the doctor should sometimes fall short of ideal standards, and share with those he comes in contact with that impulsiveness of action which leads astray.

Circe-like with high-flown speeches of glorious science and flowery crowns from the shrines of the gods, the young are wooed to a calling which, too often in after-life, they find not to be the *alma mater* they painted, but rather an old milch cow at whose lean udder every scamp of the universe seems to have a gratuitous pull. Where is the crown? It is bad enough to find that half the knowledge of his medical school won't fit into the doctor's after-life; that the physiology of the cell is but a sell; that karyokinesis won't aid; and that some other attractive sphere must displace the physiological one.

And when fledged and in busy practise, look at the mill-stones he wears about his neck! He is to remember that the toxic dose of the new drug *p*-diethoxyethenyldiphenylamidin for a mouse is 0.001 gramme; an ordinary mouse mind, not the gray churchyard mice lately alluded to in the *British Medical Journal*. Is the profession serious? Is life after all so long?

The struggling doctor is between the deep sea and the devil; 'tis necessity, not expediency, which compels him to make terms with the latter. If successful in practise he must be more than meritorious. He must seek the shelter of some social petticoat or some clerical ægis.

All the bickerings between the antagonistic parties are due to the lack of judicial law which was never born, and the existence of that pseudo-judicial substitute which would enforce unwritten law and deny that self-preservation is a primary law.

Then, as to the various impeachments, as Chimera, Criminality, Consultations, and so on: It must be remembered that all men "swim on a sea of delusions." We were all rocked in cradles of myth. It takes longer to expose the error than to discover the truth. There is no middle-aged philosopher who does not find that the second half of life is taken up largely by unlearning the delusions of the first half. It is so with the individual and the race. Precision is for the future. Every generation accuses the preceding of gross errors. Men must work according to probabilities, not certainties, and this must ever apply to medicine, whose foundations are inexact. And yet doctors, unlike judges, do not hang lunatics.

We would go further, and say:

> Doctors aid, though seldom cure: a paradox.
> Pilots, not lifeboats, they; they point to rocks,
> And save the human vessel from the shocks.

Even if they serve this far only, they serve greatly; but they go further. The men who suture the living heart, and remove growths from the living brain, are magicians. Yet people count the hits, not of the doctors, but of the quacks, and only the misses of the former, and will stick to the occultism of the past. Why is this? Why want mysticism instead of simplicity, just as they do in their religions? Surely a man who points out the rocks which would wreck me is more my friend, philosophically speaking, than he who would plunge in to save when I am already wrecked? Surely to be saved by a Doctor Quiet, Diet, or Merriman ought to be as felicitous to me as to be saved by a fashionable concoction? The little timely twist of the rudder is what most of us want.

In conclusion, I would acknowledge that doctors are untrue to others chiefly because they are untrue to themselves, and so it is also that others are untrue to them. Philanthropy is their ship, but it often sails under

false colors; in the first case because the captain is an outsider, and in the second because the crew suffer from *mal de mer*, thus contentions, jealousies, and irregularities detract from their nobility and the aids they offer; the buoys they fling out are not valued in a world where every other aid is bought and sold on mercantile principles. Science and business must sail together.

A few "judicial" aphorisms in conclusion:

Common is uncommon sense; we lack both:

Every eye has its mote; we can't see through others' spectacles, hence the value of consultations:

The more senses we use, the less easily are we deceived; the conjurer can only deceive the eye:

Preconceptions prevent conceptions:

Truth's web is unwoven with error's threads; the best of doctors can tell you but half the truth, and not the whole truth:

Yet, though this be so, every lie has a truth nucleus:

It follows from the above that diagnosis, prognosis, and treatment must be a matter of fractions:

It follows further that you are not to call a case serious, very serious, or hopeless; say, rather, A has four chances for or against him.—The man who says he never saw such a case recover ought to be plugged by a Murphy's button:

No man ever saw the same disease twice or used the same remedy with exactly the same effect twice. The remedy of now is the poison of again:

Everything is infinite, knowledge has no limitations. Yet we soon fathom the knowledge of the best:

There is no symptom truly pathognomonic, no drug specific:

Look to salient symptoms, study indications. Sick Nature veils her face.—Her distress is a desire:

Better, therefore, often to help the patient than to strike the disease:

Sympathy is the key which opens Nature's heart; carry it about you:

Festina lente; pause, as Hippocrates said, now and then, and give the patient a chance:

When to operate; when and how to tone and soothe, to rest and to work, are the riddles of the medical sphinx:

A sedative is often the best tonic; you must soothe before you can tone:

Carry your mind in your finger-tips, and in all you do:

Great poisons are great tonics; things that can't kill can't cure:

Most men are knaves or fools—with which are we safest? The knaves, likely:

Despise none, not even homœopaths; like does often cure like, but that is not the reason we condemn them:

Though good theory often makes bad practise, we are often safest with the man of wide reading alone, rather than with him of wide practise alone:

Let very well alone; if disease be walking away, don't try to make it run or it may turn:

Don't mistake *post hoc* for *propter hoc:*

The fault of the disciple is the fault of the system; no man would take 6d. as a reward if he could get £5 5s.:

That system must fall which allows fratricide to exist amidst brotherhood:

The doctor's wealth is health; insure against catastrophe:

Prepare your epitaph, "I did little things well:"

Take the fees whilst the tear of gratitude falleth; such tears do not take long to dry:

Life is too heavily weighted; the best teacher is he who tells us what we can and what we ought to carry:

Ask yourself, "Is this my duty?"

"Apollo (says Swift) sent disease at the same time as he cured it."—Why, therefore, not make some allowance for some misses among the doctors' hits?

In all your acts let the wise skepticism of Epicharmus accompany you:

If your love be for yourself, and not for your calling, do one redeeming thing, as Judas Iscariot did. He hanged himself.

Make Euthanasia easier, spare not Nepenthe.—Doctor James McMunn, in *Medical Press and Circular.*

Hysteria in Diagnosis of Perityphlitis.—In two cases the signs of perityphlitis were so counterfeited by hysteria that an operation was thought necessary to establish the diagnosis. In one of them the mimicry persisted after abdominal section; in the other it did not. I think that an operation should not be performed in cases in which there is no fever, no matter what the other signs may be.—Rendu, in *Gazette des Hôpitaux.*

Diagnosis of Hip Disease.—Puncture the hip-joint with the needle of an aseptic syringe and make microscopical examination of the fluid evacuated. The puncture can be made in the line of Barker's incision, over the anterior part of the joint below, and in a line with the anterior superior spinous process of the ilium.—J. K. Young.

The Medical Age.

Vol. XV. DETROIT, DECEMBER 27th, 1897. No 24.

Original Articles.

INFANTILE INTESTINAL CATARRH (ENTEROCOLITIS).*

BY W. R. BEATIE, M.D.

Of the predisposing causes of this disease, perhaps the most frequent one is injudicious food and overfeeding. Could we, as physicians, by command carry out our wishes with reference to feeding, cleanliness, and proper sanitary measures, the treatment of summer complaints would be comparatively easy, but often enough attention is not paid to the instructions of the attending physician, the parents looking to the medicine that is prescribed to overcome all defects. Under improved methods of precaution, we have in the last ten years lessened the death-rate fully twenty-five per cent., and now if we could only still further impress on the mothers and attendants the great benefit to be derived from proper care, we would make a still greater showing.

The name of the disease explains itself, being an inflammatory condition of the small intestine and colon, preceded by a simple diarrhœa of a few hours to a day or two. Most cases of enterocolitis may be classed under three heads: First, the period of premonition. The child at times appears to be in good health and spirits, alternating with periods of depression; it is peevish and irritable; the flesh becomes flabby; the skin loses its soft and glossy look; the child quite frequently vomits its food, which is strongly acid. The fæces look like clay and often contain white lumps that look like putty. This period is rapidly followed by the second —that of emaciation. In this stage the above symptoms are all aggravated, diarrhœa being almost always present, and the discharges assume a green color, are very offensive, markedly acid, and always contain undigested food. The child loses flesh; its eyes are bright, but it begins to have an old look; often refuses food, but will swallow spoonful after spoonful of water. In the third stage —namely, exhaustion—the symptoms are well aggravated. The child rolls its head from side to side, the appetite becomes ferocious, taking food which is vomited almost as soon as eaten. It is restless and sleepless and looks like an old person; and the old women will say, "The child can't live; it looks too old fashioned." And many times their predictions are correct. I always dread to see a child with this look, and the impression it makes on our minds, when it attempts to cry, I am confident long remains. It now has from ten to twenty and even thirty passages a day; the abdomen becomes sunken, boat-shaped, the extremities cold. During this stage convulsions often set in and death ends the scene, or, more often, the sleeplessness and fretfulness continue until the child dies in the last stage of inanition.

The cause of these diseases, in the majority of cases, lies in the primary digestion of the food, and not in the secondary assimilation. Without doubt, in some cases both conditions are present, and the exciting cause in primary digestion is fermentation; and in addition to these causes their organs of digestion, anatomically and physiologically, favor the production of fermentation more than in those of adult life, for at this time of life a child's stomach could hardly be considered a muscular structure, and its relative size is much smaller than in adults; therefore the peristaltic action that is considered such a valuable aid in digestion of adults is almost entirely wanting in the child, and the digestive juices are not so uniform in strength or quantity and are not so apt to meet the requirements of digestion.

*Read before Dade County, Missouri, Medical Association, July, 1897.

The prognosis in these cases, of course, depends upon our ability to have our instructions carried out to the letter, also whether the child be wet-nursed or bottle-fed, for we are all aware of the great difficulty of treating a bottle-fed infant.

Now we come to the most interesting factor, namely, treatment. We are familiar with the fact that at the present time the tendency among our most prominent microscopists and investigators of disease is to solve the great problem, how to overcome or to check the activity of the bacillus. This is probably natural, but we, in the interest of everything tending to promote us professionally, and in the interest of the most helpless sufferers, should attack with the same energy the cause of this class of diseases that prevail among the little innocent children.

There are a number of things that it is well to bear in mind in connection with the heated term in its relation to the babies. There are a number of rules which should govern in adult life which are equally applicable to infant life. One thing of importance which may be mentioned is lighter diet during the time when heat is greatest, as unquestionably the heat lowers the tone of the vital forces and the nervous system is disturbed, and thus the digestive apparatus, which is so largely under the influence of the nervous system, is impaired in its efficiency. The clothing should be light and, if the indications suggest, we should direct one or more cooling baths each day. The nursing baby should be put upon lighter rations than when the conditions are more favorable. If the child is artificially fed, even greater care should be exercised in the matter of diet, especially in the direction of quantity, and we should put a hold-back strap, so to speak, on the mother and not let her give the little one milk every ten to thirty minutes, as we often see them do when the child happens to cry or is fretful. The little one suffers from thirst as we do, and should be taught early to drink freely of cool water—not ice-cold water, but water which has been previously boiled and put into bottles and laid on ice. There is risk in connection with ice water besides that involved in the intense degree of cold. Ice water may be polluted, as we do not always know where the water comes from, and germs of septic matter may be carried into the alimentary canal in this way more often than we realize. If the nights are extremely hot and the child wakeful, sponging of the head with cool water should be freely indulged in.

Every case of bowel trouble has its beginning, and in the very beginning is the time to correct it, and the proper correction of it can best be secured by assisting Nature promptly after the discovery in carrying away and out of the alimentary canal the material which is causing the disturbance; for frequently the first announcement we have of trouble is vomiting and light purging. This is Nature's effort to get rid of the trouble, and if we help her in the right direction it will be relieved; but if we interrupt Nature in her work and at once try to check the secretions—lock up the sewerage—woe be unto us. Therefore, if the child be seen early enough a mild purgative with cessation from food for a time may be all-sufficient. But should we not see the patient until it is further advanced, which is generally the case in the country, I proceed by giving a mild purge of colalactose—namely, calomel, bicarbonate of soda, and sugar of milk—which acts as a good disinfectant as well as rids the intestines of foreign substances. I give it until I am sure that the passages are the result of the medicine; and I find that there is nothing like the use of plenty of water in treating any kind of trouble, especially when we have high temperature. We can assist the medicine by injecting, say, a quart of tepid water into the bowels with probably some good mild antiseptic, two or more tablespoonfuls to the quart, used in a fountain syringe with a soft rubber catheter, injecting slowly, allowing the water to return alongside the catheter. The washing removes the irritating matter that would not probably be moved by medicine, and it is also soothing and healing, often relieving pain, so that if the child is bathed immediately thereafter it will drop off into a tranquil and peaceful sleep. Now, do not tell the nurse to do the injecting, for many people do not like to use a syringe, and if we trust to somebody else doing it, it will not be done. After the bowels are cleansed, follow with subnitrate

bismuth in large doses, listerine, and occasionally tincture opii and mistura creta. But I think we should use our opiates sparingly if we use them at all, for tincture hyoscyamus and spirits of chloroform in small doses, given in glycerin, will produce a quiet rest and not lock the secretions. We also find the sulphocarbolate of zinc in doses of one-sixth grain every half to two hours a good astringent and disinfectant; if it is not well borne in powders, give it with a little subnitrate of bismuth and lactated pepsin or peptenzyme. Sodium sulpho-carbolate is also very useful and is preferred by some to the zinc salts. Sennine in two- to five-grain doses and salicylic acid in three- to five-grain doses are very useful when flatulency is present.

Now comes the most important part—diet. The mother will want to know what the child shall be given to eat. I generally say, Hands off! Do not give anything for about twelve to twenty-four hours, especially if the child is having sick stomach; if the child is nursing at the breast and has not the sick stomach, have the mother give it the breast at stated and regular intervals and not let it nurse too long. Between times give it sterilized water and occasionally lime water. Cow's milk is considered good diet, and it is, if rightly prepared and cleanly kept; but if it is not, there is nothing that can be given that will carry any more germs into the alimentary canal. We insist on the milk being boiled, and especially so if the child be bottle-fed. Also perfect cleanliness in bottle, using each time a clean bottle and nipple, just simply the plain rubber nipple, so everything can be kept scrupulously clean. Oftentimes it will be necessary to use artificial food. This may be interspersed with some form of beef extract; white of eggs in brandy is good at times; also barley water, rice water, Horlick's Malted Milk and Mellin's Food, and occasionally light broths. I insist on the child lying in the crib or bed most of the time, for this is a great deal better on account of the increase of bodily temperature caused by personal contact when nursed; and if the child is fretful the mother is so apt to trot it up and down with its stomach full of milk, and such a procedure is not conducive to tranquillity. Place the child in a cool place and put a flannel bandage on its abdomen, which it is not a bad idea to let them wear all the time.

In conclusion it is well to observe the following facts:

1. During the heated season keep the body cool, but not too cool. Uniformity should be the rule; babies don't enjoy extremes of anything.

2. Most important of all is the proper regulation of the diet.

3. Impress upon the mother the fact that the very first variation from the proper digestion should be corrected by the family physician and not by the busybody neighbor.

4. The mother should be impressed with the fact that the opinion of the physician is of as much importance in the matter of food as if medicine were to be administered, as food is the life of the child.

5. We should see to it that less diet and a more digestible one be brought into requisition.

6. Relieve the thirst by pure water—in fact, plenty of water internally and externally.

7. Religious regard for cleanliness of all feeding utensils and nursing bottles should be insisted upon.

Everton, Mo.

EFFECT OF LA GRIPPE ON PREGNANCY.

BY G. H. GILMORE, M.D.

Owing to the limited extent of my personal experience upon this interesting subject, I do not presume that this paper will contain anything new; the object is to bring up for discussion the proper care of pregnant women during an attack of influenza.

From the reports in each locality here and there of the numerous cases of miscarriage, premature and still-births, with an occasional death of the mother, la grippe as a factor in producing abortion is much more prevalent than was formerly supposed; or else is made the scapegoat—the *bacillus abortionæ accidentalis*—for one of the sins of this country. The gravida, as is well known, may be affected by any disease whatsoever, whether epidemic or sporadic, but as to the amount of influence each exerts on pregnancy there is some difference of opinion. With regard to la

grippe, according to Carpenter and Grandin, "Jacquemier, in 1837, found that this affection attacked nearly all the women in the maternity. He did not, however, find, as Cazeaux did, that it was more fatal in them than in non-gravid women. Cazeaux, however, noted a large number of miscarriages, either the direct consequences of the disease or the violent cramps from which the women suffered." Labadae-Lagrave does not question the fact that influenza often produces abortion, but disputes the theory that abortion and premature labor in influenza depend upon mechanical irritation from coughing and hyperæmia, with local congestion. Many patients abort before the cough develops, and many others resist the tendency to miscarriage notwithstanding an unusual rise in temperature, although in influenza most authorities admit the fact of a general tendency to local congestion, and especially to metrorrhagia. It is believed the cause of abortion in such cases is an infection from the uterine mucosa. In proof of this two cases are cited. The first was that of a girl of nineteen years, tubercular diathesis, who was admitted to the hospital suffering from bronchopneumonia. On the eleventh day she aborted. Three days after confinement phlegmasia alba dolens developed, followed on the fifteenth day by pyæmic abscess in the sternal region.

The following cases, which came under the writer's care during the past winter, gave the various effects of influenza on pregnancy:

Case 1.—On the night of January 13th I was called to see a woman aged 35, mother of four children, five months pregnant, with previous good health, supposed to be suffering from "brain fever," so-called from the excruciating left hemicrania from which she was suffering. Two days previously she was taken with a slight chill, followed by fever, nausea and vomiting, sleeplessness, a feeling of great prostration, violent coryza, watering of the eyes, a slight bronchial cough, and dull, heavy pains in the lumbar region, which occasionally became sharp, and radiated to the front and downward over the lower part of the abdomen. The temperature was 103° F.; pulse 97 and weak; tongue covered with a thick, yellowish coat, flat and indented by the teeth. This I considered a typical case of la grippe. The periodical pains led me to suspect threatened abortion, and a digital examination showed the os externum to be soft and patulous, with a sero-sanguinolent discharge.

After prescribing phenacetine five grains and salol three grains, to be given every four hours, and Dover's powder for pain and restlessness, I left the patient. On the following morning the symptoms were unchanged, except the labor pains, which were more frequent and more violent. The cervix was found to be dilated sufficiently to admit two fingers. There was profuse hæmorrhage with some clots. The patient was weak and exhausted. Abortion seemed inevitable, and for the safety of the patient it was deemed best to empty the uterus.

The patient was placed in the latero-prone position, the perineum retracted, and the cervix brought into view with a Simms speculum. While the pains were strong, yet they were ineffectual, with tardy dilatation. The os externum was dilated sufficiently with a Goodell's steel dilator to deliver the fœtus, which was in a state of decomposition. The placenta was adherent, and being unable to remove it with the fingers, a wire irrigating curette bent at an acute angle was used, and the placenta removed entire. After this the uterine cavity was thoroughly irrigated with a warm carbolized douche. From the condition of the heart, anæsthesia was used during no part of the operation. The membranes were heavily congested and were slightly fœtid. The patient was able to sit up at the end of eight days free from fever, although quite anæmic. At no time did the fever rise above 103° F.

Case 2.—A multipara, aged 32; good health; mother of three children; about eight months pregnant; taken with an attack of la grippe. The temperature on the first examination was 103.4°, pulse 102 and weak. She complained of great weakness, being hardly able to breathe. The treatment was the same as in the previous case, except one-sixtieth of a grain of strychnine sulphate was given as a heart tonic. On the third day labor pains came on, but they were weak. After eight hours of labor, the hæmorrhage growing more profuse, she was relieved by instrumental delivery, and the placenta and membranes expressed by Crédé's method. The child lived, but gave indications of having taken la grippe *in utero*. Its temperature on the second day ran to 101.5°; it sneezed, coughed, and had congestion of the ocular conjunctivæ, with a watery discharge from the eyes.

Case 3.—Primipara, pregnant four months, on February 13th was taken with la grippe, the temperature running to 104° F. On the second day she was taken with slight period-

ical pains in the lumbar region, with a serosanguinolent discharge. General treatment for la grippe was pursued, with the administering of half a drachm of the fluid extract of viburnum prunifolium and ten grains of potassium chlorate every four hours for the threatened abortion. On the fourth day all symptoms of miscarriage disappeared.

Case 4.—This was a woman married four years, and since the birth of the first child three years ago she had had five and six miscarriages a year. In September the uterus was curetted for a chronic endometritis from which she was suffering; in October she became pregnant, and was placed on viburnum compound as a uterine tonic. On the 3d of February she was attacked with la grippe, followed on the third day with threatened abortion. Viburnum and potassium chlorate was given, with the disappearance of all symptoms on the fifth day.

The cause of abortion from influenza is unquestionably the local congestion, with a direct infection from the uterine mucosa; the local congestion being produced to a certain extent from the embarrassed condition of the general circulation, which occurred in the above cases. This condition permits the local stagnation of blood in the uterine sinuses and plexuses, thus increasing the physiological contraction of the uterus to such an extent as to produce abortion.

Regarding the treatment little can be said other than is given in text-books on the subject. Prophylactic measures should be pursued as soon as the pregnant woman is attacked with la grippe. The best results, I believe, in cases of threatened abortion, can be obtained by the combined use of potassium chlorate, which, according to Simpson, increases the oxygen of the blood, and viburnum, which relieves the uterine congestion; opiates to allay restlessness and mental excitement; and a good heart tonic when necessary. If abortion becomes inevitable, active treatment under the strictest antiseptic precautions is demanded, and should not be delayed. The uterine muscle becomes weakened during an attack of influenza, and the *vis a tergo* being insufficient to expel its contents, active interference is necessary, thus lessening the danger to the patient's life from exhauston.

Murray, Neb.

INFANTICIDE—THE SLAUGHTER OF THE INNOCENTS.

BY C. C. MAPES.

The term "infanticide" literally signifies the killing of an infant at any age, from birth to the period known as childhood, and is thus distinguished from fœticide, which is limited to destruction of the fœtus *in utero*, at any time between conception and expulsion. The crime of infanticide (legally) can only be committed after the child is wholly born. There is considerable conflict between medical and legal authorities on the subject. Physiologically, or medically, it would be considered a live birth if only the child's head were delivered before death took place from violence, while legally it would not; thus a prisoner who had murdered a child while being born by severing the head from its body was acquitted. Legally the conditions of live birth are not satisfied when only a *part* of the body is born; the whole of the body must be brought into the world, and detached from that of the mother, except for the umbilical cord, and after this event the child must be alive.

The crime of infanticide (homicide—murder), whether the child be wholly or only partially born when the deed is committed, is revolting in the extreme, yet its frequent occurrence even in civilized communities cannot be controverted. History is replete with evidence of the crime since the earliest ages, among all classes and conditions of people, from the highest to the lowest, white and black, savage and civilized.

Some of the older writers defend infanticide as a necessary check on population. In some countries and among certain nations it was at one period the custom to destroy all sick and deformed as well as all female children, over and above a certain number. In other cases it was the custom to destroy all children simply because parents possessed insufficient means to maintain them. In some instances the father, and in others the mother, acted the part of executioner. At one time in certain countries the number of children in a family, especially daughters, was fixed and regulated by law, which also ordered the slaughter of all maimed and deformed children. Social disorder and famine have led to sales of infants. Children of both sexes

have been sacrificed as religious offerings; in some cases (*e.g.*, in expiations for sacrilege) the male, being considered the nobler child, was preferred.

Infanticide as a custom still prevails among certain races of people, the enormity of the crime not seeming to have been recognized on the one hand, nor the ancient custom abandoned on the other. Among some of the barbarous races, where the necessity for strong warriors is imperative, the weaker children are usually killed because they cannot when grown enter the battle-field, nor adequately defend or provide for themselves.

Among the more civilized races, even at the present day, the crime is committed with alarming frequency, usually by the mother, either to conceal shame from illegitimate childbirth, or to escape the burden of supporting her offspring. Various means and methods are employed to accomplish destruction of the new-born, innocent, helpless infant. It may be smothered, strangled, drowned, decapitated, etc. Cases have been reported—several only recently—where inhuman parents have thrown their offspring into the pen to be devoured by hogs. It is almost beyond human comprehension how such a heinous crime can be committed by sane persons, yet the fact remains.

Infanticide is common among certain animals, notably the feline tribe, the house cat being a prominent example. The writer has often witnessed the male exterminate four or five out of a litter of six. Why one or two should be spared must remain a mystery, as careful study and observation fail to develop any assignable reason for the phenomenon. Ewes having given birth to twins have been known to kill the weaker of the two, by starvation and acts of violence, unless prevented; and similar instances have been observed among many other animals. In some species, when but one is brought forth at a birth, it is slain by either the male or female parent. Ganders sometimes kill the young goslings, and hens often pick the little chicks to death.

To return to the subject proper: From several standpoints there is an intimate relation between criminal abortion (or fœticide) and infanticide. Of the former we have treated at length elsewhere,* and in that contribution we took occasion to remark that separation of the terms abortion and fœticide was unnecessary, inasmuch as in either case the products of conception were destroyed—that the crime was murder no matter at what stage of utero-gestation it was committed, although in legal parlance the expression "quick with child" or "with quick child" was still used to designate whether the child had become viable (alive) or not. The position we take, which we think can be fairly substantiated by facts, is that the life of the human being is inherent in the product of conception from the moment impregnation takes place, and to destroy it is to commit murder. Although it may often be difficult, even impossible, to demonstrate to the satisfaction of the average jury that the crime of infanticide (murder) has been committed in a given case, and thus secure conviction of the guilty party or parties, it is nevertheless true that in many instances conviction should follow, based upon evidence deduced. To the medical man guilt may be plain, but the average court of justice rules otherwise in nine out of ten cases.

Touching upon the medico-legal aspect of the subject we excerpt the following from an editorial in one of our leading medical journals:†

> The moment the womb is instinct with embryo life, and gestation has begun, the crime may be perpetrated.
>
> Wharton and Stille, from their careful study of the law as given in numerous decisions, lay down the following legal propositions as established:
>
> 1. Where there is a malicious wound inflicted on an infant, with intent to produce death, and death ensues after birth, the offense is murder.
>
> 2. Where there is malicious exposure of an infant, with intent to produce death, and death ensues after birth, it is murder.
>
> 3. Where there is wanton exposure of an infant, without the intent to produce death, but with the expectation of shifting the support of the infant upon some third person, and death ensues after birth, it is manslaughter.
>
> 4. Where there is exposure resulting from necessity, non-culpable ignorance or insanity, and death ensues after birth, the offense is excusable homicide.

---

* *Vide* MEDICAL AGE, vol. xiv, No. 22.

† *Medical and Surgical Reporter*, Philadelphia, vol. lxxiv, No. 20.

Questions of considerable nicety sometimes arise in trials for infanticide, as to whether death took place after the child was actually born or whilst birth was in progress. Although the law be clear that a child must be actually born to be the subject of murder, it is not so clearly and definitely settled as to what, for this purpose, constitutes actual birth.

The courts have decided that "the being born must mean that the whole body is brought into the world, and it is not sufficient that the child respires in the progress of the birth. The child might breathe before it was born, but its having breathed is not sufficiently life to make the killing of the child murder; there must have been an independent circulation in the child or the child cannot be considered as alive for this purpose."

As put by a learned medical jurist: "If the argument should ever be used in any case of infanticide, that the violence was inflicted upon a child which had lived without breathing, it would have to be sustained by other testimony or evidence than that of a medical expert,—since there is no medical proof of extra-uterine life, independent of respiration. Hence the commission of infanticide, by submerging a child in water before it has breathed, or the exclusion of air from it in any other way in which no external marks are left, deprives the medical examiner of the means of deciding whether the act was committed upon a living child. Because, we repeat, the lungs remain in the same condition after as before birth, provided respiration has not taken place, and, in the short interval of existence possible under such circumstances, no other change could occur which could be relied upon as an indication of extra-uterine life. It would appear that the efforts to breathe, although unsuccessful in inflating the lungs, modify the circulation of the blood so as to leave certain proofs of the fact."

A recent writer states that on more than one occasion his attention has been arrested and his suspicion aroused by the conduct of mothers whose infants were insured by certain life insurance companies; that the incentive for gain among a certain class, whose moral sensibilities are blunted, proves too much for them, and induces an apathy and extreme indifference, which deprives them of the ability to execute the injunctions enjoined by the attending physician; that it is a singular and often observed fact that there exists a noticeable want of motherly feeling and care among this element. There can be no reasonable doubt that certain vicious classes of parents whose infants are insured in wildcat, thieving life insurance companies allow their offspring to die of want and neglect in order that they may collect the stipulated amount of insurance, or such portion of it as can be secured from the insurance company. In such a case it is next to impossible to deduce evidence on which to base a suit for infanticide, and with such evidence in hand conviction would probably not be forthcoming, and the guilty parties would go unpunished. It is certainly a grave mistake to put an instrument of this nature into the hands of an ignorant, unprincipled and murderous people. Infant insurance should be absolutely prohibited, especially among such classes, if not altogether.

By reference to the Kentucky Statutes, 1894, we find little which is of interest in this connection; there is not in Kentucky, as in some of the other States, a statute covering either criminal abortion or infanticide. As stated in a previous communication,* it is not, at common law, an indictable offense to perform an abortion upon a woman, provided the woman herself survives the operation. Although the statute covering punishment for murder is plain, common law does not recognize the killing of a fœtus, a *terræ filius, in utero*, as murder. There seems to be a wide difference between the physiological, or medical, and the legal understanding as to what constitutes a living human being. Below we give an abstract of the law in Kentucky with notes:

(Common Law.) NOTE.—The statute does not attempt to give any definition of the crime of murder or manslaughter, and we must therefore look to the common law for their definitions. (Connor *vs.* Com., 13 Bush.)

SEC. 1149. Punishment for murder. If any person be guilty of wilful murder, he shall be punished with death or confinement in the penitentiary for life, in the discretion of the jury.

NOTE.—Homicide resulting from negligence. The general rule is that one whose negligence causes another's death is responsible. . . . If it was of such a character as to be felonious, the offense is murder.

NOTE.—Abortion—resulting in death of mother. Where the means used to procure an abortion result in the death of the mother, the person using the means is guilty of either murder or manslaughter, and not merely of involuntary manslaughter. (Peoples *vs.* Com., 87 Ky.)

SEC. 1220. If any woman be delivered of any issue of her body which, being born alive, would be

---

*MEDICAL AGE, *loc. cit.*

a bastard, shall endeavor privately, by drowning or secretly burying the same, or in any other way directly or indirectly to conceal the birth thereof, so that it may not be known whether it was born alive or not, she shall be confined in the penitentiary not less than one nor more than five years.

NOTE.—It is not material to the question of guilt whether the child be born dead or alive. (Com. *vs.* Hopkins, 9 R.)

Considering the enormity of the crime (infanticide) and its alarming frequency, it seems strange indeed that it is not specifically mentioned in the statute books of every State and in the laws of every civilized country. The human babe is more helpless and more dependent than the offspring of any other animal, and to wilfully put it to death is a crime at which the most hardened criminal should shudder. It is almost beyond comprehension how a mother, whose natural tendency should be to protect her offspring, can raise her hand to strike it down in death, and the same principle holds true as regards the father; yet, as already stated, both are not infrequently guilty of the crime, either singly or conjointly. Peoples of civilization seem not to have risen above the savage races in this respect, except that perhaps the crime among savage races is more systematically and regularly carried out.

A practical writer on "Slaughter of the Innocents" expresses himself in this language:

It would be the height of temerity and presumption on my part to trespass on the threshold of medical and surgical authority, learning and science, and tell them what to do I have no credentials as either a medical teacher, a moralist, or a theologian; I am, however, sustained by the fact that an unknown quantity is sometimes used to confound the strong, and I have no hesitancy in proclaiming that a child, whether it be an embryo, a fœtus, or a fully developed babe, has under all circumstances a legal and moral right to its life, and ought never to be deliberately killed.

The present writer is aware many authorities contend that the fœtus is simply a vitalized neoplasm; that the relation between the fœtus and the mother is essentially and distinctly different from that existing between the child and the mother; and the foregoing excerpt is merely interpolated to strengthen the position previously taken, viz., that a human embryo at whatever stage of its development or existence is a living human being, and to deliberately destroy it is to incur the guilt of homicide.

Another phase of the subject "Slaughter of the Innocents" deserves attention, viz., the manner in which the average mother clothes her young babe, especially during the hot summer months. This feature alone probably causes more deaths than any one disease which attacks infantile life, and while possibly it cannot legally or otherwise be considered infanticide, still the mother is certainly guilty of culpable remissness, or what might better express it, she often causes the death of her offspring by overattention. As a case in point: During the excessively hot weather the present summer a baby aged four months was brought before one of the medical societies of Louisville to demonstrate the result of a surgical operation for the cure of a strangulated hernia. Regardless of the extreme torrid period, when adult life was sweltering in seersucker and linen, the poor little babe was swathed in the heaviest flannels, including the regulation binder next the abdomen of the same hot material. The skirts were twice the length of the child and were folded over its feet and legs. In addition to the cotton and bandage it was also furnished with the usual napkin folded many times and tightly pinned around its body. The regulation cap and embroidered woolen jacket were not forgotten, and in fact the poor little thing was literally being killed by its load of wearing apparel—"macerated in its own juices."

It is really remarkable the amount of overattention young infants are sometimes capable of enduring; that they do not all die under such management is a constant source of wonderment. The editor of the *Medical and Surgical Reporter* "hits the nail on the head" in a recent issue of that periodical:*

Utterly unpremeditated but fully anticipated and awaited with dread, is the apalling sacrifice of infant life which annually, during the hot season, occurs from causes which ought to be and are preventable.

Man is prone to boast that through the development of his own powers he has risen superior to those governing factors which, under natural conditions, inexorably control existence in all forms of

---

* *Medical and Surgical Reporter*, Philadelphia, vol. lxxii, No. 21.

life. To some extent this may be true, but Nature has a way of maintaining her laws, whether by the use of conditions of her own establishment or by taking advantage of the artificial conditions introduced by man. If in the process of his higher development man has succeeded in modifying the influence of environment, in making of more effect the principle of natural selection, or in entirely abrogating the law of survival of the fittest, as these obtain under Nature, his successes have been more apparent than real, for he has merely substituted for the natural, artificial conditions which are equally effective for the operation of Nature.

There is a well recognized causal relation between hot weather and infantile mortality. In the temperate zones this is so well understood that it has passed into a proverb, and the supposititious danger of the "second summer" is dreaded alike by the intelligent and the ignorant.

Aside from the ills which infant flesh is naturally heir to, much of the awful mortality is due to artificial conditions which could be eliminated simply by the exercise of common sense. These conditions must be regarded as predisposing causes, and the most common as well as the most potent are *irrational care*, *improper feeding*, and that irrepressible pestilence that stalketh at all hours—the purveyor of free medical advice. Volumes might be written concerning these advance agents of Death, but attention is now directed to a few only of their many manifestations. So trivial do some of these matters appear at first, and indeed not within the province of medical practise, that it would seem a work of supererogation to call attention to them were it not that the most casual observer must be impressed with the constant and universal prevalence of these little things which together become so massive. If by exercising its influence the medical profession can, for prophylactic use, develop among the caretakers of childhood a little common sense, less cerebral energy need be expended devising futile novelties for remedial application.

It is affirmed that of all living animals the infant man is the most helpless and dependent. This is true, but the mere fact that the human infant can survive so much of the carefulness inflicted upon him in his helplessness shows him possessed of considerable tenacity of life.

The average caretaker of infancy seems to be governed by three ideas, which are as unalterable as were the laws of the Medes and Persians: Baby must never be cold; never be hungry; never cry—anything to prevent that.

As an instance of irrational care, notice the clothing of the average infant during hot weather. With the thermometer ranging in the nineties, and the humidity registering near saturation, while adult humanity swelters in seersucker and gauze, drinks freely of iced water and seeks comfort in a cooling breeze, observe the unhappy condition of the baby whose natural dependence subjects him to artificial caretaking.

Despite every precaution the infant is showing signs of failing health; is very wakeful and restless; will take little or no food, although offered it every time it cries; is fretful and cries constantly; wants to be taken up, and while held will be quiet and go to sleep, but if laid down will speedily wake and cry; seems flushed and feverish; there is an eruption apparent, etc., etc. The caretakers are at their wits' end. They have tried every means known to their ancestors, their friends who dispense free advice, or to themselves, and in despair they send for the physician.

Now if the medical man has the courage, he may give the caretaker a realizing sense of the baby's trouble and at the same time enlighten the understanding as to the simplicity of the remedy—and all without giving a drug to the care-worn infant. The caretaker, clad in the original mode of Eden, must be garmented as follows: A bed-quilt folded, in a similar shape and used for a similar purpose, must be applied in a manner similar to the infant's diaper; the safety-pin need not be securely locked. A strip of flannel, eighteen inches wide and thirty-six inches long, is applied about the abdomen and fastened as is the infant's binder. A long-sleeved woolen undershirt is necessary to protect the upper part of the body. In lieu of fancy socks, old-fashioned knitted woolen stockings may be worn. The next stratum consists of a flannel underskirt of such length that it may be folded back over the feet so far as the hips. If the caretaker has never neglected duty, a thin layer of muslin underskirt, a foot or two longer than the flannel, may be added. Over all, a daintily embroidered slip, in length just twice the height of the wearer. All garments must be fastened with safety-pins, so bent as to easily unlock and permit of excursions of the points.

The caretaker must now be placed, on the back, in the middle of a feather-bed, covered with a blanket, and every current of air shut off lest cold be taken. All signs of distress must be relieved by administering lukewarm soup.

The caretaker thus relatively put in the place of the care-sufferer, marvelously speedy would be the solution of the problem of the baby's illness, and the proper mode of treatment would be a revelation inspired of common sense.

By a single experience of this kind the caretaker would discover that an infant learns to feel long before it acquires fluency in expressing its opinions; that an infant's physical well-being is not conserved by maceration in its own juices; that thirst is not relieved by the administration of solid foods; that the free exercise of the muscles necessary for development, and unimpeded circulation, respiration, etc., are not best obtained by swathing the body in tight, hot garments; and that relief for infants, as for the adult, can best be obtained by exercising the same common sense in both cases.

It would appear that the average mother is incapable of understanding or appreciating

the importance of exercising a definite amount of common sense in the care of her infant. She could learn much from observation among the animal kingdom; and if she possessed ordinary intelligence and a grain of common sense, it should occur to her that the baby does not need to be fed every ten minutes on goat or poor cow's milk, nor to be sweated to death in layer after layer of flannel the year around; that it should be fed only upon breast milk for a certain period; and its clothing should depend entirely upon the temperature, at all times being only sufficient to keep the child warm.

The *Health Magazine*, vol. iv, No. 5, excerpts an article from the *Journal of the American Medical Association* (the author not stated) on murder of the innocents, as follows:

The incidence of mortality in the first years of life is a well known showing of all tables of vital statistics, but its preventable factors are not so clearly recognized, while far behind lags the resolution to make theoretic knowledge a realized fact. Talk as we may about the disadvantages of "grandmotherly government" and "socialistic legislation," no one can affirm that in matters of preventive medicine and hygiene there can be too much governmental oversight. The wisdom and morality of the few must become that of the many, and it can only become so by stringently penal legislation and executive control. Human nature is at least not yet sufficiently ethical to be allowed indiscriminate and unscrutinized control over the young life that comes to it.

Take the matter of child life insurance as an example. Is it not evident that parents too poor to bury a child should be held too poor to pay premiums on the insurance of the child's life? And yet this is the excuse constantly made by parents, either sincerely or deceitfully, to justify the custom. What a clear temptation to murder!

The English medical journals, especially the *Lancet*, have in late years been active in showing up the prevalence of this abuse in England, where it is undoubtedly of greater extent than with us.

As to our own country, affairs are in a chaotic state. In 1895 a bill was reported to the Massachusetts Legislature providing that no insurance company should issue a policy upon the life of any child under ten years of age, living in that State. The penalty was fixed at $100 for each offense, the law to come into force September 1st, 1895. Whether the law ever came to a vote or not (probably not in these days of "politics") we do not know, nor whether other States have attempted similar regulation.

Another cause of infant mortality is overlying. It will doubtless surprise even physicians to learn that one thousand children are each year killed in London alone by this careless (or perhaps often intended and criminal) custom. Yet such is the estimate of a London coroner. From an editorial in the *British Medical Journal* (1895. 1, 36) we excerpt:

"There are sad sides to a Merry Christmas, and not the least sad of these, this year, has been the sacrifice of infant life from overlying. On December 27th, 1894, Mr. Braxton Hicks held five inquests on the bodies of children who had died while sleeping with their parents, the cause of death in the majority of cases being suffocation. The coroner said he could not persuade parents to get cots for their children, and that a thousand infants were overlain in London alone every year. The matter is extremely serious. Perfectly healthy children are sacrificed to the bad habit of making them sleep with their parents. It is perhaps difficult to draw the line and to separate thoughtlessness from carelessness so gross as to be criminal, but Liverpool statistics showing the enormous frequency of deaths from overlying on Saturday night points to the fact that the carelessness is gross, and that unless drink be accepted as a general excuse for a crime, the action is in a large proportion of cases criminal. Mr. Braxton Hicks announced that he would make it a rule in all future inquests of this character to disallow the expenses of the parents, a course which he adopted in each of the five cases before him. The fight against preventable diseases is hard enough, but it seems harder still to prevent the effects of carelessness and folly."

Of infanticide, every physician is well aware that neither the ancients nor present-day savages have a monopoly of the practise. *In every city there are men either with or without a medical degree who make a profitable business by murder, through abortion.** There are many reasons why these criminals cannot be brought within the reach of the law, the principal of course being the inability to secure evidence against them. Their "patients" will not tell, but the evidences of their work are well known to every gynæcologist. One thing is, above all things, certain: There should be compulsory inspection and registration of all "still-born" infants.

We would urge upon our general medical associations and societies the *duty of promoting such badly needed legislation.** They might also profitably institute investigation and control of the *disgustingly much-advertised lying-in institutions, where, "for a consideration," infants after delivery are "supplied with homes."**

Undoubtedly it is a difficult matter to educate the community in the care of children and in the value of child-life. The law and a sensitive conscience are agreed that *murder of an unborn fœtus is as much murder as of one born, and that infant murder is as much murder as is adult murder; but ordinarily the lower classes make an unconscious sliding scale of criminality increasing in approximation*

*Italics mine.

*to real murder of the adult, and beginning with conception, when, and shortly after, "getting rid of it" is by no means sinful.** Against such a tendency in the interest of civilization and ethics we must all protest with what power we may. But the efficacy of our protest will depend upon the numbers that speak, the publicity of the protest, and the effectualizing of it in legislative enactment.

As already shown, the subject of infanticide deserves the careful attention and consideration of all conscientious writers, either legal or medical. Facts concerning the crime, its enormity and prevalence, should be plainly stated, and especially should the moral and legal aspects be dilated upon until the law-makers shall recognize its importance and take proper steps to formulate, put into effect and enforce legislative enactments which shall have for their purpose conviction and adequate punishment of all offenders. A crime so dastardly in its significance certainly deserves especial recognition for the sake of humanity and the preservation of the race.

Louisville, Kentucky.

RAPID DILATATION OF CERVIX DURING FIRST STAGE OF LABOR.

BY J. G. MEACHEM, M.D.

About the most difficult thing in the world to do is to write a paper on this subject, for the simple reason that the question is imaginative and ideal, rather than real and practical. The fact is that there is really no such thing as a more rapid dilatation of the cervix at this time than that which Nature intends, without traumatism or damage resulting. When all conditions of gestation are perfect and complete, the uterus has been so prepared under Nature's wise laws that all adventitious tissue, interstitial deposits, unnecessary substance, have been removed by absorption and change so that there exists perfect relaxation and flaccidity, ready and only waiting for the moment when the unknown excitant shall gradually set in action the contractile and expulsive efforts of the uterus; nor is it by expulsive effort, so far as mechanical effect is concerned, that the os dilates. If we can imagine that three contractions of the uterus could dilate the cervix, descend the child, and expel it into the world, we could not say but that the first contraction was just as expulsive as the last. Indeed, most of us have seen cases where a single expulsive effort changed the position of the fœtus from within the vagina to a complete birth; we have seen how a single pain has driven the child from within the uterus into the vagina firmly against the perineum; and many of us have seen cases, though rarely, when, if not one pain alone, two or three pains have fully opened the cervix and os from the smallest beginning, and at the same time expelled the child into the vagina. There is no difference in the expulsive force, except in degree of pressure, as manifested by the contraction of uterine fibers, whether it be the first effort or the last.

The average time for complete dilatation of the os, when all things are natural, according to the best human judgment, is about six hours. There are exceptions to this: primiparæ are longer; multiparæ shorter. But when we know that six hours is the average time, even under the best provisions made by wise Nature herself, should there be any thought or desire for a more rapid dilatation? Manifestly no. Man never yet improved upon Nature's work. If he seems to aid, hasten, or improve in one particular way, he adds an equal disadvantage in some other direction. Nature's acts are for a completed whole; man's acts are most frequently for a completed part without reference to the whole. Ninety per cent. of all labors begin, progress, and can complete themselves without the help of any professional attendant. I have often wondered if even the ninety per cent. of the cases a professional man cares for really show any better results than the ninety per cent. of the whole, which need no professional attendant.

What can be the motive of an attendant to desire a more rapid dilatation than that which is provided for? Can it be possible that the desire to finish a case in order to meet another prompts him to introduce the finger between the thin rim of the dilating os and the bag of waters, crowding the os backward, or pulling it forward, in the hope of opening it wider? Can he not realize that such action irritates and bruises the os,

* Italics mine.

breaks the continuity of surface and opens the way for infection, weakens some of the circular fibers, which injury is the beginning of an easily completed laceration brought about under the greater strain of successive and more violent expulsive efforts?

Can the annoyance of solicitous friends, who constantly importune the attendant to aid, to assist, and to relieve the patient, who may insinuate inability or almost threaten compulsory work under cover of telling of the success of some other physician, lead him to rupture the membranes early in the possible hope that the advancing head of the child may more rapidly dilate the os? Will he ackowledge the fact that the os is then no longer the part acted upon, to say nothing of the loss of the wonderful lateral dilatation which takes place when the bag of waters presses into the opening, and that now force is exerted upon the uterine tissue above the cervix, pressing from above downwards, causing swelling and tumefaction of the cervix and retarding its dilatation? And besides this, the fœtus is subjected to a firm grasp with the powerful contraction of the uterus, compromising its viability.

At the present time there is probably no intelligent physician who would think of giving ergot in the first stage of labor to expedite dilatation, or even to sustain possible flagging uterine effort. We know, however, that midwives frequently administer it, regardless of the stage or progress of parturition. They are human, and perhaps do not know any better. Medical men also are human, subjected to exhaustion, overwork, fatigue, loss of sleep, anxiety, care, annoyance, responsibility, trials and self-sacrifice, and sometimes miscalculate and judge in a wrong way; but let me say, notwithstanding all these seemingly mitigating circumstances and influences, do not give ergot in the first stage of labor, under the impression that its effect, through the circulation, either by direct or reflex action, will aid to open the womb and shorten the first stage of labor. It will not do it. On the other hand, if it acts at all, it will produce a clonic spasm, which not only adds suffering to the woman and retards dilatation, but frequently, by prolonged pressure upon the child by the contracted uterus interrupting the placental circulation, destroys its life It may be suggested that the unusual number of still-births reported by midwives can be accounted for by the use of ergot in their unskilful hands.

Latterly it has become quite a fashion with obstetricians to use forceps early. There permeates medical atmospheres a tendency to do all things by direct act and purpose. It is quite common to hear of physicians who do not wait much more than an hour after the first stage is supposed to be complete before using the forceps. And, indeed, some go so far as to say that when the uterus is even three-quarters dilated, when the first stage has been somewhat prolonged, it is advisable to take advantage of all privileges which may be sanctioned by any professional consent, and to use forceps. I wish to say emphatically that this procedure, as a means to dilate the uterus and more rapidly to complete labor, is wrong; that the forceps should not be used until after the first stage is actually completed; and by completed I mean the full degree of dilatation, which shall allow the rim of the os to recede over the child's head. There is a difficulty right here in deciding when this complete act has taken place. I have met with cases when it seemed as if there was perfect dilatation, and yet by crowding the finger up and around the side and back of the child's head, there could be felt a rim of tissue which quite prevented the descent of the fœtus into the vagina. I have been called in consultation, and notified to come prepared to deliver the child with forceps, when upon making an examination have found just this condition and nothing more. A little more time given to Nature allowed her to complete her work in the usual satisfactory and safe manner. Do not apply the forceps in the first stage of labor; exercise the best possible professional judgment; indeed, haste in this is quite likely to mean a lacerated cervix, accompanied by a long list of symptoms and conditions, unfavorable to the woman, unsatisfactory to the physician, and not conducive to the reputation of any professional man.

I have thus far spoken of some things which one may be tempted to try if he allows himself to be influenced contrary to his best judgment. To return to the first suggestion made, that there is really no such thing as a

more rapid and safe dilatation than that which Nature provides, is it not true that existing circumstances, which seem to retard or to prolong the first stage, are abnormal conditions more generally depending upon mental or physical disturbances than upon any condition special to pregnancy itself? How frequently it is that a woman, who has had neuralgia more or less often all her life, is seized with it in periodical type, not only before, but even after, the os has begun to dilate, the increased pain and suffering being mistaken for regular uterine action, and generally retarding average progress in the first stage.

The same may be said of diseased conditions of the blood manifested in plethora or anæmia; of the effects of drugs regularly taken; by non-elimination of toxic agents; by defective renal secretions, or other autopoisoning; and by reflex action from irritants in the stomach, bowels, or rectum—any and all of which may incite irregular action in the uterus, as shown by so-called pains which are too strong or too weak; too long or too short; too quick or too slow; but almost always interrupting Nature's work.

Then, too, if we consider emotional disturbances, such as fear, anxiety, lack of confidence in nurse or physician; the desire for the presence of a special friend or relative; the effect of unwholesome advice; the personal knowledge of cases which have terminated unfavorably; and worse still, the poisoning of the mind, by those who tell their exploits in terrible cases under the plea of showing their ability,—these, one and all, have an effect upon the uterus to change its normal action, which may be manifested specifically in the mildest of hysterical conditions or in the most violent, and not infrequently localized in the uterus itself by spasmodic action, both severe and prolonged. There may also exist the hypersensitiveness which belongs to an exhausted, emaciated and poorly nourished body; the unbalance between the nervous and muscular system, the force of which is often directed to the uterus, and manifested by irregular action; or it may be directed and concentrated in the mind, exhibiting every degree of imagination. The great majority of all conditions which I have named and intimated are directly traceable to causes particular or special to the individual, appearing at any time when any unusual change occurs, and not necessarily a part of or belonging to the pregnant state. When these disturbances occur, both before the actual beginning of labor as well as during the first stage, retarding dilatation and progress, and we administer remedies for their correction and relief, we are apt to think, from favorable results that sometimes follow, that the prescribed remedies have had a direct primary effect upon the uterine fibers to relax and to dilate them. But is this true? Is such really the case? Is it not rather true that when we relieve the existing complications that then Nature has an opportunity to assert herself, and if the full period of gestation is completed often does assert herself to a favorable degree? We administer correctives and laxatives for the digestive tract, and for the relief of the neurotic condition. We resort to asafœtida and valerian, to bromides, to chloral, to morphine, to opium, and to a great variety of other agents—anything, in fact, which will relieve the neurosis. Take, for instance, the effect of chloral or morphine as typical, and what is the result? The relief of the neurosis—perfect calm and quiet; freedom from suffering and pain; possible sleep, with mental quiet, as well as physical rest; and in this state of tranquillity the natural forces of parturition take care of themselves and go on in their work to a happy completion of the first stage—from beginning dilatation to the end in about five or six hours; and this corresponds essentially with the period of time required in the uncomplicated normal first stage. The gain has been comfort to the lying-in woman; but the attendant has yet plenty of time to exercise patience and to wait. My experience in obstetrical work led me, years ago, to bring about this desired relief and tranquillity, and then to retire from the presence of the patient and to remain away as long as possible, that Nature might do her normal work. This is the most successful and safe way of securing a rapid dilatation of the os. I have no doubt that many other successful professional men have decided upon the same plan and have followed it.

I wish to speak a few words in regard to

the completion of the gestation period. No one can determine exactly the day, and much less the hour, when gestation is complete, and this frequently leads to deception. There may be a slowly dilating os with thin edge, and at the same time feeble, yet apparently definite, contractions of the uterus, plainly indicating beginning labor, which condition may continue for a day or two with some progress, until finally a time occurs when suddenly regular action is set up with a speedy termination. In this instance the first stage may be said to be tedious or prolonged for twenty-four or forty-eight hours, because of the manifest pains and slightly dilated os. On the other hand, the same condition — beginning dilatation of the os, with thin edge and with apparent definite uterine action—after a few hours may become quiescent and remain in abeyance for not only a day or two, but for a week or two, and then have normal action take place. It cannot be said that the first stage in this instance covered a period of a week or more. No; it is rather that the period of gestation was not complete, and for practical deductions this can be allowed for as covering a few hours' time, as well as for the few day's time. It is a stronger factor in cases of supposed slow dilatation than is usually allowed for.

As already intimated, I believe there is no satisfactory way of bringing about a specially rapid dilatation of the os and cervix in the first stage of labor. Writers on this point are wonderfully silent. They frequently make note of "*When* the cervix has disappeared and the edge of the os is thin;" "*When* the os is dilated to the size of a dollar;" or "*When* the dilating rim recedes over the child's head" — always and ever alluding to Nature's own work. A rapid dilatation is the measure of Nature's plan. A more rapid progress than this must be *accouchement forcé*. Nor is there anything more satisfactory to the reader who searches the annals relating to the induction of premature labor. The rapidity is brought about purely by mechanical means, which I consider to be foreign to the scope of this paper, and therefore shall leave it as an acknowledged *dernier ressort* in rare, unusual, and exceptional cases.

Racine, Wis.

AMPUTATION OF THE LEG ABOVE THE KNEE WITHOUT GIVING CHLOROFORM OR ETHER, BY INFILTRATION AND DEEP INJECTION.

BY J. M. PERKINS, M.D.

When surgery was in its infancy, as to amputations the surgeon was powerless to give his patient a guarantee that he would do his work and not give him pain while he was removing the diseased member; but blessed be the name of Wells or Morton, for the discovery of anæsthesia. It makes no particular difference to the surgeon as to its antiquity. The boon to suffering patients, for the relief it gives while undergoing an operation without pain, is the great crowning point to be discussed in the minds of all surgeons, regardless of the many eulogies of glowing words of praise of these noted discoverers of chloroform and ether, of which we have read in our various medical journals the past few months.

There have appeared in our chain of progressive science other chemists, whose life history should occupy as large a space in the archives of medical lore as Morton or Wells. Their names are Niemann of Goslar, who first discovered the efficacy of cocaine as an anæsthetic, and Vinci of Berlin, who first promulgated the physiological action of eucaine as a pain destroyer. We have not read any flowery articles of praise of these noble and progressive scientists and their great discoveries.

Through the discovery of cocaine and eucaine by these noted chemists the surgeon has been clothed with more valuable anæsthetics than either chloroform or ether, and those which are attended with a less risk to life. They can also feel more at ease while operating on a patient in a conscious state of mind; ready at any moment to warn the operator of approaching danger. The surgeon can also assure his patient that he will suffer no shock of the nervous system, and no pain, which is a great relief to his distressed and troubled mind; also a boon to those who have met with adversity, in the loss of health, necessitating them to fall into the hands of some surgeon to obtain relief.

In the proper, careful use and mode of using these two remedies amputations can be done, and without shock or danger to the

patient, as I have tested in a case just operated on, which I here report:

Mr. R. W——, aged thirty-four, farmer, married, had been suffering with a knee-joint disease for seventeen years. About two years ago his knee caused him so much pain that he went to a hospital in Nevada, Missouri, where he was treated, and a plaster-of-Paris splint applied to immobilize the joint, hoping to produce ankylosis in a slight flexed position, and give him use of his leg. He moved to Lebanon, Missouri, in March, 1897. His knee became very sore and was accompanied by pain in the upper end of tibia. He called at my office and asked me to remove the old splint and examine it and apply a new splint, as the one he had was getting very badly broken and spoiled. I removed the old splint and put on a new one. He was then unexpectedly summoned to see a sick brother and take him to Vincennes, Indiana. On his return through St. Louis he met an old acquaintance and former associate, who is an assistant to the Baptist Hospital. He was by his influence persuaded to remain at the hospital and have exsection performed by the hospital surgeon, who would remove the joint and give him a good leg in a straight position. He consented, and the operation was done in the early part of April. When they undertook to give the anæsthetic he ceased breathing all at once, and only by strenuous efforts on the part of the hospital staff was again caused to breathe. The attendants then held him by main strength while the surgeon performed the operation. It was terribly painful and a great shock to his nervous system. The hoped for result of the operation was a failure.

He remained in the hospital almost nine weeks, when the surgeon informed him that union was complete. His leg was put in a plaster splint (cutting out the part anteriorly over point of operation, so it could be dressed with healing powder, when drainage tube was removed) and he was sent home about the 1st of June, 1897.

After a lapse of a few weeks he called me to see him (July 21st). On my arrival I found, on removing the plaster splint, that the parts all around the knee was an indurated mass of pus and granular tissue, discharging ichorous pus and sero-pus, at seven different sinuses. Pressure on upper end of tibia caused great pain. It was very much swollen. On lifting the leg from the splint I found there was no union of parts.

From the character of the pus I suspected necrosis. Using the probe I located bone in three different places. I told him the only hope to save his life or save him from long-continued suffering was to remove all the offending causes, and to do so it would be necessary to lay open the joint and curette out all offending material and remove the dead bone, and then the result was not sure as to a cure. Amputation was the shortest road to recovery, was my opinion and advice. He hesitated as to the operation in either case. I called on the 25th of July and found the trouble going on to a greater destruction of the parts. He informed me that he had about made up his mind to have the leg amputated, only he was afraid he would never be able to stand the pain and shock. He then related to me the ordeal he had passed through at the hospital. I then promised him that I could do the operation without either chloroform or ether anæsthesia, and without any pain comparatively. I would do it by cocaine infiltration into the skin, producing loss of pain—the injection would numb the cutaneous nerves; and give deep injections of eucaine into the deep muscular tissue that would numb the muscles, and the cutting would not cause any pain. He took the matter under consideration. On Monday evening the leg where affected assumed a dark appearance and as if going to slough, and began to emit an offensive odor. He sent his wife and sister to my office to inform me that he desired it amputated, and would come to my residence the next morning to have it done and remain until it healed.

On July 29th, with the assistance of Doctors James and Albert McComb and Doctor Carter, I removed the leg. After cleansing the limb well at the point of operation I injected between the layers of skin the following solution, with a long hypodermatic needle, using Schleich's formula: Cocaine hydrochlorate, 2 grains; morphine hydrochlorate, ½ grain; sodium chloride (pure), 4 grains; sterilized distilled water, 4 ounces; plus 3 minims solution carbolic acid (five-per-cent.) This was used in the manner

described by W. R. Robinson, M.D., Ph.G., in the *New York Medical Record*, issue of January 9th, 1897, page 44—about seven ounces of a freshly prepared solution. I then injected twelve drachms of a two-per-cent. solution of eucaine, it having been freshly made with steril'zed water. The cutting was done with only slight pain, and that was on posterior surface of leg, where I failed to inject the solution; the leg being so painful and sore, he could not bear it raised up so I could reach the part. There was no shock after the operation. We then cleansed the wound with hot bichloride solution, tied the arteries, and applied a twenty-five-per-cent. solution of chloride of zinc to all the parts of the fresh cut surface of the wound. We then placed a strip of iodoform gauze at the base of the wound, letting it protrude from either side, at angle of the wound. We then stitched the muscular tissues together, sutured the flaps together with continued sutures, and applied the following powder as a dressing: Europhene, 2 drachms; aristol, 2 drachms; boric acid, 2 ounces; mix. Over this we placed iodoform gauze, and over this a layer of absorbent cotton, baked until brown.

We removed the dressing Monday, August 2d; found wound clean and nice. We then pulled out the gauze and placed in a drainage tube, reaching and protruding on either side. Washed out tube with full strength peroxide hydrogen (fifteen volume), twice daily till healed up. No pus ever came away with wash. Removed the dressing again on August 6th for the purpose of removing the sutures. Wound nice and sweet, union having already taken place all along the line of flaps; sutures absorbed. We always dressed the wound as we did at first dressing. The wound never discharged any pus, and is completely healed. I attribute the success of the early union without suppuration to the cleansing of the wound before suturing with the chloride of zinc solution, and suturing of the muscles together before stitching the flaps.

As a dressing to open wounds, or dressing for fresh operations, I do not believe anything surpasses the powder above described, as I have used it for years.

I claim no priority as to this being the first capital operation performed in the United States by the infiltration method, and comparatively without pain, yet I have been unable so far to find a record of any operation done by this mode prior to July 29th, 1897. It is one of the few that have been reported at least.

A FRIEND IN NEED.

BY E. B. WARD, M.D.

Several years ago a middle-aged man of solemn mien and funereal cast of countenance came into my office one evening and inquired if the doctor was in. His mind being set at rest on that subject, he went on to say that he lived over toward Lansing and had a friend who was suspicious that he had contracted some sort of venereal disease, as he had been down to the city and got "out with the boys" and exposed himself; and as he was coming over here his friend requested him to call for a little medicine.

The moment he used the word "venereal" I was on my guard, and looking him steadily in the eye I repeated his words and said, "It's a friend of yours?" "Yes," he said; "an old friend of mine."

"Well, now," said I, as I picked up a lamp, "just step into the other room and let me look at your friend." His face never moved a muscle as he arose and followed me in, where I discovered that his suspicions were correct and so informed him.

"Well, now," said he, with true granger gravity—for it was a solemn thing with him —"What had I better do first?"

"Well, stranger," said I, "the proper caper for you to do now is to cross my palm with a five dollar bill, and I'll attend to the balance of the business."

He followed my instruction in silence, and I fitted him out with the proper paraphernalia, together with instructions for use, and he sped away in the darkness. I never saw his face again, from which I inferred that the disease was aborted and his friend made happy.

I might have added the gratuitous advice to "tell the truth to your doctor and lawyer" hereafter, but I didn't. Offered advice as well as service is often malodorous.

Laingsburg, Mich.

THE MEDICAL AGE.

A SEMI-MONTHLY REVIEW OF MEDICINE.

—PUBLISHED BY—

WILLIAM M. WARREN, Medical Publisher, Box 470.

All communications regarding papers, reports, etc., should be addressed to the Editor of the MEDICAL AGE, P. O. Box 470, Detroit, Mich.
Matters relating to advertising space, etc., to be addressed to the publisher, William M. Warren, Box 470, Detroit, Mich.
The editor cannot engage to return rejected manuscripts or to correspond with the writers thereof, unless such are accompanied by sufficient postage.

DETROIT, MICH., DECEMBER 27th, 1897.

Editorial.

VALE.

The undersigned, after having edited THE MEDICAL AGE for four years, with this issue retires from the same permanently, and expects to go abroad with the beginning of the year. The publishers have kindly agreed to cancel an unexpired contract of two years.

The writer would ask for his successors the same kindness and courtesy which have been afforded him during the years he has managed THE MEDICAL AGE.

G. ARCHIE STOCKWELL.

A CHANGE OF THE EDITORIAL PILOT.

With the retirement of Doctor G. Archie Stockwell from THE MEDICAL AGE, it becomes my duty to announce the engagement of Doctor Frederick Wharton Mann, of Detroit, as the future and responsible Editor of this journal. Doctor Mann is honorably known to the medical profession for the singularly dignified and able manner in which for many years he guided the fortunes of the *Physician and Surgeon;* for the depth and variety of his professional knowledge; for the charm, grace and purity of his literary style. To the indispensable experience of long practise, he unites the resources of a ripe scholar and that enviable native taste which delights in intercourse with book and pen.

Doctor Mann enters with enthusiasm upon his new task, and he will do his utmost to realize my ideal of a medical fortnightly—a journal that shall be clean, brave, fearless, practical, and helpful—that shall speak its convictions regardless of consequences, and shall gauge its success by the utility and help it can proffer its readers. The true measure of value in all things human is the good they yield, and the standard of helpful service should abide as an ever-haunting presence in the conscience of the medical editor, above all other men.

Neither the Editor nor the readers of THE AGE shall have occasion to complain of a niggardly appropriation for the purchase of literary material; no expense will be spared in securing the best class of contributions from the most competent writers.

In this spirit I earnestly solicit the support of present subscribers, of every author who merits a hearing from an educated and scientific profession, and of every reader who believes that honesty and utility deserve encouragement in medical journalism.

WILLIAM M. WARREN,
Publisher.

A USEFUL BOOK.

It is so seldom in these days that one comes across a book that is written for the purpose of giving help to the reader rather than for the display of the author's knowledge, that it is a duty as well as a pleasure to call attention to Doctor Lauder Brunton's "Lectures on the Action of Medicines," which have just been published in a handsome yet handy volume by Messrs. Macmillan & Co. (price, 10*s.* 6*d.*). Doctor Brunton has the art, by no means common among medical writers, of making the *utile* grateful to the intellectual palate by blending therewith a large amount of *dulce*. His book, if taken up for profit, is pretty sure to be read through for pleasure. It has in a marked degree the lucidity which Matthew Arnold placed first among the qualities of literary style. It is written in a strictly scientific spirit, and is withal thoroughly practical; it is, in a word, common sense enlightened by physiological and pathological knowledge applied to the treatment of disease.

It is not as a form of words lightly used by "irresponsible indolent reviewers," but as a counsel honestly intended to be helpful, that I advise every practitioner to buy this book and turn it over with nocturnal and diurnal hand until he has assimilated not merely the facts which it contains, but the methods by which they have been gathered and made serviceable in practise.—*The Practitioner.*

ANAPHRODISIACS.

This is the title of a class of remedies scarcely at all recognized by latter-day therapeutical writers, but there is really so little to be found regarding the same in modern text-books that one cannot adopt the convenient excuse of having been led astray thereby. Some writers, such as Pereira, Wood, etc., admit the existence or possibility of anaphrodisiacs, but neglect to specify with any form of distinctiveness; others ignore altogether a matter which is the more remarkable inasmuch as other subjects are treated so copiously.

It would seem as if the medical profession should give time and consideration to this class of articles, inasmuch as they are often sought after, and they likewise appear as worthy of distinct classification and study as any other drugs, such as errhines, anthelmintics, antispasmodics, emmenagogues, etc. Again, if the class is once firmly established further observation may tend to increase and perfect the number of individual remedies.

HYDROPHOBIA PROPHYLAXIS.

It is a matter of surprise to find a journal of the character of the *Indian Medical Record* giving space to a communication which purports to outline a measure of prophylaxis for hydrophobia which has "never been known to fail."

It is added: "This may be given with confidence any time the disease comes on. If the patient has just been bitten it will be well to wash the wounds and cauterize freely, keeping open as long as possible, and applying a linseed poultice morning and evening." —After this almost anything might be prophylactic.

The formula given is as follows:

Take a handful of leaves of the wild babul tree, wash them well and pound them in a clean mortar, adding a sufficient quantity of water to produce, when strained through a muslin cloth, about a wineglassful of the juice, which should be swallowed by the patient (half the quantity for a child). In some cases this causes nausea and vomiting, which if excessive can be stopped by taking a tablespoonful of sweet tyre (*Chakka dhye*). This dose should be given every morning to empty the stomach, and in the evening an hour or two before dinner, for three days, during which the diet should consist of sweet tyre and rice, or wheat cake without salt and sweet tyre. No stimulant whatever. Weak tea may be taken if desired.

In some cases, owing to a nervous temperament, the patient may feel an uneasiness some days or months after the administration of the preventive, when it should be repeated as above for three days to remove any uneasy feeling.

The wild babul tree above mentioned is known in Hindustani as *Dhivana babul*, and in Telugu as *Murki tuma*, and may be distinguished from the common sorts by its pods or beans, which are short, round, and crooked, and when dry of a dark brown color; while those of the common forms of babul are long, flat, ash-colored, and serrated.

The wild babul might possibly prove of value in medicine as a sedative; but in so far as "hydrophobia" is concerned it may be safely ranked with the "madstone" and other nostrums.

DANGER IN THE BARBER SHOP.

In these days of antisepsis it seems rather strange the barber shop has not attracted more attention than it has. There is probably no medium better for conveying infection than soap lather; and yet in the average barber shop hundreds of people are lathered from the same cup, in which more or less infective material is apt to remain.

Recently in London a barber was summoned before the police court for operating in his shop while himself suffering from an infectious disease—diphtheria. Notification had been received from the medical man in attendance, and the barber warned, but nevertheless he continued to ply his calling, and the evidence went to show that at least one case of diphtheria was communicated through him.

Less than a week since the writer entered a barber shop and observed a man being operated upon in the next chair who was unmistakably suffering from syphilitic rupia. The common cup of the barber was in use, and when the syphilitic left the chair the lather from the same cup was applied to the face of a young and almost beardless but rather pimply boy.

It would seem, considering the dangers that threaten, power ought to be conveyed to

Boards of Health to inspect barber shops, their paraphernalia, etc., and direct how the management of the same shall be carried on.

The fact that barbers' razors are dipped so often into hot water probably accounts for the fact that so few cases of infection are reported from this source.

NOT NECESSARY TO DIE.

One Doctor Stevens of the Boston University Medical (homœopathic) School is reported as saying he is convinced that the progress of science will enable man to overcome decay, and its climax, death. He further states his belief that death at seventy years or thereabouts is due to the fact that generation after generation is born into the world expecting to die at that time, and therefore do die. He expresses the opinion that if children were brought up to believe they would live forever the life limit would be extended in the course of generations.

All of which sounds nice but lacks adaptability. In spite of the so-called progress of medical science just as many people die of disease and old age as there did several centuries ago, and as regards some diseases actual increase in the death ratio is considerable—notably pneumonia.

THE LABOR PROBLEM.

This is perennial, and the name of remedies that have been suggested, or even attempted, is Legion.

A recent writer in *Chambers's Journal* sums up the situation as follows:

> As a matter of cold fact there is employment today for every able-bodied man and woman in the United States—remunerative employment. There is more territory and more enterprise suffering today for want of laborers than there is territory overcrowded or enterprise oversupplied. There are vast sections of country where it is actually impossible to obtain help, male or female, and where that is we have arrested development.
>
> I know it to be a fact that within twelve hours of Chicago enough help cannot be obtained to carry on farming operations. There are no farm-hands to be had, although homes and good pay are offered on yearly contracts. There are no house servants to be hired for love or money, and the well-to-do are obliged to do their own washing and other housework. The absence of help is as marked in all the small Western towns as in the country. I believe there is some sort of employment and a home for every man, woman and child in this country who can do something.
>
> The trouble is just as it is with contracts, the question of exchange. People are freezing to death within a few hours of the coal regions, while other people are starving here while corn is being burned for fuel in Kansas. Our grain rots in the shock for want of help to garner it, while 30,000 hungry mouths and twice as many idle hands are within a few hours of travel of our fields.
>
> The high daily wages of the manufacturing centers drains the country of young men, and once they are there never return. Their children would rather live in garrets in the city than go on a farm and plow and plant and do housework.
>
> The only real labor problem is to equalize things and to draw off the surplus from the congested points and spread it over deficient spots. If the so-called labor leaders and humanitarians could work harmoniously and earnestly together to that end the labor problem might be solved. I do not say it could be accomplished without the cooperation of labor, for it could not.

EUTHANASIA.

Some years since the present editor of THE MEDICAL AGE had occasion to contribute editorially to this journal a brief contribution on this topic, which latterly seems to have excited considerable interest and discussion in lay as well as medical and clinical circles. It goes without saying that the lingering superstitions of theology must bias opinion in many instances, and that intelligent and judicial discussion demands utter segregation from tradition, whether legal or theological. The trouble has been, and still is, that most people start from the assumption (theological) that life is a Divine product over which man has not morally any control. The discussion rarely is started from the side or standpoint of the sufferer, but from that of those who do not suffer, and are consequently unfit to pass an intelligent opinion. It is another case of, to employ a simile of Artemus Ward, being willing to "sacrifice all our wife's relations if necessary" to establish a desired point. Consequently it may not be amiss to look at the topic from "the other fellow's" point of view.

First, to look at the matter theologically: If life is derived from Divinity, and must be extinguished by the same hand, what right has any one to endeavor to extend it? This

is practically the same argument as that of the priest who declared woman had no right to permit the pangs of childbirth to be alleviated because God commanded "In pain and travail shalt thou bring forth"—a selfish argument, as one lady remarked, because the only time man became a mother "God caused a deep sleep to fall" on him. If man has no right to his life, he certainly has no right to preserve it. But if his life is his own, and what he makes it, and he is to be judged theologically from that standpoint, he must certainly possess an inalienable right to terminate it when it no longer is of benefit to himself or to others; indeed, from a theological standpoint his life, when it becomes a burden to himself or to others, should unselfishly be terminated. It is a case of if thy right hand offend thy brother, cut it off.

It is equally pertinent to declare man has no right to foster and extend suffering and misery.

THE ELECTRICAL TREATMENT OF HEMIPLEGIA.

An application of the neuron theory to the electrical treatment of this malady was recently communicated by V. Seletski to the Kiew Medical Association with the claim that in his hands it has been very successful.

It is based on the idea that in cerebral lesions, when the focus heals, the compressed portion of the pyramidal tracts will resume their normal condition and functions if the neurons have been kept from atrophy and the muscles from losing their habit of functional activity from lack of use in the meanwhile. He attains this by electric treatment, which exercises the neurons (galvanization) and the muscles (faradization). Seletski first galvanizes the head by placing the cathode on the hemisphere involved in the lesion, with the anode at the back of the neck. Then the hand is placed in salted water with the anode; the cathode at the back of the neck; after which the foot is galvanized in the same manner. The currents must be very weak and of brief duration. Muscular contractions are induced at the same time with an interrupter applied to the muscle, while the patient assists, by raising the hand, for example, when the deltoid is being treated. By means of this treatment Seletski claims to have restored motion to groups of muscles that had been paralyzed from seven to fourteen months, which ordinary electrization could never have accomplished. In one case of eruptive trophoneurosis of five years' standing, in which the pruritus rendered sleep often impossible, improvement was observed after the first treatment; also in three cases of polyneuritis.

HUXLEY ON TOBACCO.

The following was recently published by the *Medical Record:*

At a debate on smoking, among the members of the British Medical Association, some speakers denounced and others advocated the practise. Professor Huxley said:

"For forty years of my life tobacco has been a deadly poison to me. In my youth, as a medical student, I tried to smoke, but in vain. At every fresh attempt my insidious foe stretched me prostrate on the floor. I entered the navy; again tried to smoke, and again met with defeat. I hated tobacco. I could almost have lent my support to any institution that had for its object the putting of tobacco smokers to death. A few years ago I was in Brittany with some friends and we went to an inn. They began to smoke; they looked very happy, and outside it was very wet and dismal. I thought I would try a cigar. I did so—I smoked it; it was delicious. From that moment I was a changed man, and I feel that smoking in moderation is a comfortable and laudable habit and is productive of good. There is no more harm in a pipe than there is in a cup of tea. You may poison yourself by drinking too much green tea, and kill yourself by eating too many beefsteaks."

The amusing part of the foregoing is that it was originally published about thirty years ago.

EDITORIAL NOTES.

Useful Points in Intubation.—

Recently, in the *Cleveland Medical Gazette*, Doctor Shiler pointed out the advantages of bringing the head of the patient well forward when intending to perform intubation, the operator resting on his knees. He concludes:

One can readily understand why the conditions are so much more favorable. The vertebral col-

umn rather forms a concavity anteriorly when the head is held forward and almost downward, so that the larynx is brought thus backward and comes within more easy reach; and I think the direction in which we can now push the instrument will be easier found than when standing.

Tetanus.—

Poli in the *Gazzetta degli Ospitali* reports effectually combating tetanus in a boy of sixteen years by subcutaneous injections of a one-per-cent. solution of carbolic acid, repeated after every two hours' interval. The wound was excised and the part dressed with carbolic acid and iodoform, and sodium bromide and chloral given by the mouth.

As the wound resulted from the kick of a horse, Poli remarks this evidences the telluric rather than equine theory of the origin of the disease. He also quotes other cases of tetanus relieved by same method of treatment.

Rime Frost as a Product of Nitrogenous Compounds.—

Petermann, of the Belgian Academy of Sciences, finds that hoar frost is particularly rich in nitrogenous compounds, and therefore plays an important part in increasing nitrogenous matter in the forest and in purifying the air.

Exophthalmic Goitre.—

Functional heart murmurs are by no means uncommon in this malady. Recently in a case presented to Doctor Solis-Cohen organic heart lesion was found in the form of mitral stenosis.

Mosquitoes.—

It is perhaps a little late in the season, but an exchange insists that a mixture composed of one part oil of sassafras to four of alcohol is effectual in keeping away these little pests.

"Kissing for Dyspepsia."—

This is the title of an amusing paper contributed to the November number of "What to Eat," by Charles P. Benton.

The Oldest Physician in the United States.—

Doctor Stephen Adams, aged ninety-four, lives in West Newfield, Mass. He was graduated in 1828.

Items and News.

The Cold Tub.—

The need of dogmatic medical guidance to the average medical man is nowhere more in evidence than in the manner of the cold tub. Some men there are who bathe in the open, year in and year out, and many more who every morning plunge into cold water under the somewhat tempering shelter of their own roof-tree. For the most part such folk doubtless thrive and remain vigorous, but then it must be borne in mind that only the robust would brave such Spartan discipline. But what has medicine to say on so important a point of every-day life? So far as we know, there is no authoritative and generally accepted dogma on the point. That which braces up the nerve centers and circulation of the strong man might be full of danger to the weakling. So, too, with age; as the elasticity of the arteries decreases with the lapse of years, by just so much increases the risk of a sudden strain upon the capacity of the blood-distributing system. Out of all the tangle of nescience upon this subject, one or two solid facts, or what appear to be such, rear their stubborn heads. For instance, who will gainsay the dictum that the chief test of fitness for the cold bath is the individual power of establishing reaction; in other words, of getting the delightful after-glow and warmth of the skin that should follow a vigorous "toweling." Secondly, many people who seldom or never take a bath are, like our ancestors, healthy and long-lived. In spite of that negative evidence, however, we would advise a morning tub to all our readers; cold for those who can stand it, tepid for weaker and less resolute brethren, and warm for the aged. But even this general indication must be carefully modified to suit particular cases. The wise citizen will consult his medical adviser upon this weighty matter of daily routine.—*Medical Press and Circular.*

Quacks and Gulls.—

The following story illustrates the particular twist in the brain of "this foolish-compounded clay, man," which leads so many otherwise fairly intelligent folks to place more reliance on quacks than on qualified medical practitioners. In a fashionable quarter of Paris one "Alexis" does a roaring trade as a bone-setter and herbalist. To him one fine day there came a Commissioner of Police with an invitation to follow him to his office. The quack took the matter quite coolly, and

while preparing to obey the summons of the law, said to his servant, "Don't send any one away; I shall be back in a few minutes." The representative of the civil power hinted with a significant smile that his return might possibly be a little delayed. On arriving at the police office, "Alexis" asked the Commissioner for a moment's private interview. This, after some demur, was granted. When they were alone "Alexis" took from his pocket a diploma of Doctor of Medicine of the most authentic character, at the same time begging the astonished Commissioner not to betray his secret, on the ground that he would lose all his practise if it were known that he was a regularly qualified doctor. He added by way of explanation that he had tried practise in the orthodox way and had nearly starved behind his brass plate. An inspiration came to him to start as a quack. He removed his plate, dropped his surname, gave himself out as a bone-setter—and he might have added, pointing to his rooms crowded with patients, "*Si monumentum quæris, circumspice!*" This interesting story carries its truth on its face. I do not know whether "Alexis," doctor though he be, has much knowledge of medicine, but he evidently knows mankind.—*The Practitioner* (London).

Cacti.—

All the thousands of varieties of cacti are at home only in America. They belong exclusively to this country, and are found nowhere else, except one variety which Guier knew and named cactus. These strange plants are unlike anything else in Nature, and in the United States the varietes range from the giant candlestick cactus of the Arizona desert, which grows sixty feet high, to tiny half globes not larger than a marble.—*American Naturalist.*

Electrically Salted Meat.—

This is the product of a process invented by Mr. Pinto, of Rio de Janeiro. It is said to consist of a continuous electric current passing through the brine for twenty hours, whereby the cure is completed. It is supposed that the ozone is electrically chilled, which is a powerful factor in sterilizing and preserving the meats.

Beware of It.—

Imported beer has salicylic acid added to it as a preservative.—*Homœopathic Recorder.*

Just So.—

"Il microbo non é la causa della malattia."—*Revista Omiopatico.*

Book Reviews.

ANNUAL OF THE UNIVERSAL MEDICAL SCIENCES. Edited by Charles E. Sajous, M.D. Volumes III, IV, and V. Cloth; 8vo; pp. 721, 612, and 687. The F. A. Davis Co., Philadelphia.

"Surgery of the Brain, Spine, and Nervous System" is by Lewis S. Pilcher; "Thoracic Surgery," by J. McFadden Gaston; "Abdominal Surgery," by William T. Bull and William B. Coley; "Diseases of the Rectum and Anus," by Charles B. Kelsey; "Certain Diseases of the Genito-Urinary Apparatus in the Male," by E. L. Keyes; "Syphilis," by J. William White; "Orthopedic Surgery," by Lewis A. and Reginald Sayre; "Diseases of the Bones and Joints, Amputations and Resections," by P. S. Conner and Leonard Freeman; "Fractures and Dislocations," by Lewis A. Stimson; "Diseases of the Arteries and Veins," by Christian Fenger; "Plastic Surgery and Surgical Diseases of the Jaws and Mouth," by Rudolph Matas; "Tumors," by Ernest La Place; "Surgical Diseases," by Louis McLane Tiffany and Ridgely B. Warfield. There are the customary index and reference list.

In Volume IV "Diseases of the Skin" is by L. B. Brocq (Paris); "Ophthalmology," by Charles A. Oliver and William C. Posey; "Otology," by Charles S. Turnbull and Arthur A. Bliss; "Diseases of the Nasal and Accessory Cavities, Pharynx, Larynx, and Œsophagus," by Charles E. Sajous and A. R. Turner; "Diseases of the Glandular System of the Neck," by C. S. Witherstine; "Legal Medicine," by Frank W. Draper; "Hygiene and Epidemiology," by Walter Wyman; "Anatomy," by L. Testut (Lyons); "Histology and Microscopical Technology," by Charles E. Sajous; "Physiology," by W. H. Howell and G. P. Dreyer. There are the usual index and reference list.

In Volume V "Electro-Therapy" is by G. Apostoli and Jules Grand (Paris); "Surgical Dressings," by F. Van Imschoot (Ghent); "Toxicology, Forensic, Accidental, and Industrial," by C. S. Witherstine; "Anæsthetics," by Dudley W. Buxton. Then follows a copious Analytical Index and Cyclopedia of Treatment by Charles E. Sajous, and a general index by Eugene and N. I. Devereux (Paris).

A TEXT-BOOK OF CLINICAL THERAPEUTICS. By Hobart A. Hare, M.D., B.Sc. Cloth; 8vo; pp. 758. Price, $3.75. Lea Brothers & Co., Philadelphia.

The measure of success attained by the author in his effort to provide the physician and student with a reliable guide in therapeutics is indicated by the call for another revision of this volume—the sixth—within a period of seven years.

No small part of the approval earned may be justly due to the original plan upon which the volume was constructed, being divided into two sections, in the first of which the author deals with remedial agents, while in the second he presents a

description of the various diseases, their symptoms, complications, and treatment. These two integral parts are brought into direct relation by means of numerous references, thus connecting a description of the disease with the rational employment of appropriate therapeutic agents. Ease of reference is moreover provided for in the highest degree by the alphabetical arrangement of the text and by two full indices, one of remedies and the other of diseases. This edition has been practically rewritten and likewise arranged so that it can be readily used in connection with the author's Textbook of Practical Diagnosis.

Clinical Diagnosis. By Doctor G. Klemperer. Cloth; 8vo. The Macmillan Company, New York.

This work is widely known to all medical men who read German, and all English readers will be rejoiced to find within their reach this very comprehensive but condensed manual. Its chapters deal with the inspection and examination of the patient, the diagnosis of the acute infectious diseases, diseases of the nervous system, digestive diseases—each under its special symptomatology—diseases of the respiratory apparatus, the heart, and circulation. Two chapters are devoted to urine analysis and to the diseases of the kidneys. The four concluding chapters deal with the disturbances of metabolism, the diseases of the blood, the Roentgen rays as diagnostic aids, and animal and vegetable parasites, including such bacteria as are of clinical importance.

No book so complete, short of a text-book of medicine, is before the American medical public. It has passed through seven editions in its original language in as many years, and it is well understood the German school leads in clinical diagnosis.

The Physician's Perfect Call List and Record. By Doctor G. Archie Stockwell, F.Z.S. Flexible morocco; long 66mo; pp. 200. Price, $1.50. William M. Warren, Detroit.

The fact this publication has reached its twelfth year is sufficient evidence of its increased popularity and practical usefulness. Its paper and binding are alike superb. In size and shape it is by long odds the most convenient and the best of the "Visiting Lists," and moreover it will not crumple or break down in the pocket.

A prominent feature is the absence of all advertisements and other "dead wood," and the extremely convenient arrangement of its most practical contents. Of the information afforded that most demanded for ready reference is to be found upon the inside covers or on the fly leaf; and the posological table of doses has been entirely rewritten and brought up to date, so that it is most thorough and complete.

Especially commendable is the Obstetrical Table in two colors, and the arrangement for the concise keeping of all accounts, credits, debits, profit and loss, etc. No physician can afford to be without this work.

The Twentieth Century Practice. By Thomas L. Stedman, M.D. Volume XII. Cloth; 8vo; pp. 850. Price, $5.00. William Wood & Co., New York.

The last issue of this famous international cyclopedia of modern medical science deals with mental diseases, childhood, and old age. Two hundred and fifty-four pages are devoted to Different Phases of Insanity, the author being G. Fielding Blandford, M.D., F.R.C.P., the well known Lecturer on Physiological Medicine at St. George's Hospital, London. Idiocy is treated of by Paul A. Sollier, M.D., of Paris, in 114 pages. Clinical Anthropology, fifty pages, is by the celebrated Cesare Lombrosi, Professor of Legal Medicine and Psychiatry in the University of Turin. Old Age and the Different Phases of Senility are treated by J. Boy-Teissier, M.D., Physician to the Hôpital Sainte Marguerite of Marseilles, in 110 pages. The balance of the volume is taken up with the Diseases of Children, including Infectious Maladies and Rachitis, by Jules Comby, Physician-in-Chief to the Hôpital Trousseau of Paris.

A very comprehensive index completes the volume.

A Treatise on Gynæcology, Medical and Surgical. By Doctor S Pozzi. Translated by Doctor Brooks H. Wells. Cloth; 8vo; pp. 950. Price, $5.50. William Wood & Co., New York.

Doctor Pozzi is probably second to no one in the world as an authority on medical and surgical gynæcology, and to his skill as an operator and ability as a teacher he adds a rare power of expression. The complete yet concise treatment of the subject, the easy style, and above all the essentially practical character of the work, have long made this a favorite text-book in all parts of the civilized world; indeed, it is rare that one sees a treatise on any subject which covers the ground with such thoroughness, both as to the topics embraced and as to the complete care with which each is treated.

This third and latest edition has been very carefully revised by the author himself, who has also made many important additions and thus brought the work up in theory and practise abreast of the times. The careful attention paid to the translation by Doctor Wells is an ample guarantee of the scientific value of the volume.

The Principles of Bacteriology. By A. C. Abbott, M.D. Cloth; 12mo; pp. 542. Lea Brothers & Co., Philadelphia.

Bacteriology has succeeded in attaining a position of considerable importance in modern med-

ical education. Doctor Abbott has attempted to cull from the vast science the knowledge of real importance to the medical student and practitioner, and present it with simplicity and directness, yet with ample instructions for laboratory work. That it is a favorite in medical schools is well known, a fact which is doubtless true, in a measure at least, to the fact it has enabled the author to keep it constantly revised and in touch with the rapid advancements of the progressive subject. The present is the fourth edition, is handsomely illustrated, no less than nineteen of the one hundred and twenty-five being colored.

International Clinics. Edited by Judson Daland, J. Mitchell Bruce, and David W. Finlay. Cloth; 8vo; pp. 360. The J. B. Lippincott Co., Philadelphia.

This is a quarterly of clinical lectures on Medicine, Neuralgia, Surgery, Gynæcology, Obstetrics, Ophthalmology, Laryngology, Pharyngology, Rhinology, Otology, Dermatology, along with specially prepared articles on treatment by the leading professors and lecturers of the world. Among the most notable articles are: "The Uses and Abuses of Opium;" "Treatment of Injuries of the Eyeball;" "Senile Heart;" "Carcinoma of the Stomach;" "Hypertrophied Nasal Catarrh;" "Hæmaturia;" "Addison's Disease;" "Inherited Syphilis in Infancy;" "Chronic Intestinal Invagination;" "Congenital Defects of the Heart;" "Pernicious Anæmia;" "Foreign Bodies in Air Passages;" "Hæmatoma;" "Suppurative Kidney;" "Hæmorrhage in Pregnancy and Labor;" "Diagnosis of Abdominal Tumors;" "Displacements of Kidney;" "Losses of Hair."

Skin Diseases of Children. By George Henry Fox, A.M., M.D. Cloth; 8vo; pp. 166. William Wood & Co., New York.

This is a most excellent and concise work, which had its origin in a series of illustrated articles specially written for the *American Journal of Obstetrics*. Many additions have been made thereto, although the work does not purport to be a complete description of all cutaneous affections which occur in childhood. It is merely intended to serve as a practical sketch of the symptomatology and treatment of those eruptions which are most likely to affect the juvenile portion of every family. A large and complete formulary has been added. There are likewise sixty illustrations, besides twelve photogravures and chromographic plates.

Stirpiculture. By M. L. Holbrook, M.D. Cloth; 16mo; pp. 182. M. L. Holbrook & Co., New York.

This is a book devoted ostensibly to the improvement of offspring through wiser generation. The first chapter is devoted to "Stirpiculture" simple and pure; then follows "Prenatal Culture;" "Heredity and Education;" "Evolution's Promise for a Healthier Race;" "The Germ-Plasm and its Relation to Offspring;" "Fewer and Better Children;" "A Theoretical Baby"—most of us have seen theoretical babies, but the majority would prefer practical ones. As a whole the book will well repay reading, although there are probably few who will coincide fully with all of the author's ideas.

The Pocket Medical Dictionary. Edited by Ryland W. Greene, A.B. Flexible morocco; 16mo; pp. 420. The J. B. Lippincott Co, Philadelphia.

This little work is the handiest one that we have seen of all the so-called "pocket medical dictionaries." This includes the pronunciation and definition of twenty thousand of the principal terms used in medicine and the allied sciences, together with many elaborate tables. It is no exaggeration to say that this is the most complete of anything that has ever been published. It fully supplies the need of a pocket lexicon, handy in size, yet clear, reliable, and up to modern requirements. The claims of this volume may well be based upon its fulness, accuracy, and convenience.

Scientific American Supplement Reference Catalogue. Cloth; Imperial 4to; pp. 48. Price, 25 cents. Munn & Co., New York.

This is a Catalogue of valuable papers published from time to time on all scientific subjects in the *Scientific American* Supplement. The Catalogue includes over ten thousand of the most important articles—articles that are of great interest, many of them treating on subjects regarding which no information can be obtained elsewhere. Each number of the Supplement contains sixteen large pages, including many articles besides those catalogued.

We find this a very valuable reference volume.

The Medical News Visiting List for 1898. Flexible leather; 12mo; pp. 256. Price, $1.25. Lea Brothers & Co., Philadelphia and New York.

The last edition of this well known Visiting List is before us. It is published in four forms: weekly, dated for thirty patients; monthly, undated for one hundred and twenty patients per month; perpetual, both dated and undated. When desired a ready reference thumb index is furnished at an additional price of twenty-five cents.

This is one of the neatest of the visiting list class.

Transactions of the Michigan State Medical Society, 1897. Volume XXI. Cloth; 8vo; pp. 528. Published by the Society, Grand Rapids.

The annual report of this Society is even better than heretofore. The Presidential Address, by Doctor Hugh McColl, and the Address on Surgery, Gynæcology and Medicine are far above the average. There are the usual reports of sections and the multitude of papers.

TWENTY-EIGHTH ANNUAL REPORT OF THE STATE BOARD OF HEALTH OF MASSACHUSETTS. Paper; 8vo; pp. 920. Wight & Potter Printing Co., Boston.

This is the Report for 1896, and is one of the few reports of State boards of health that are of practical value. The examination of the water-supplies in Massachusetts is especially instructive.

REPORT OF THE STATE BOARD OF HEALTH OF MICHIGAN FOR 1895. Cloth; 8vo; pp. 566. Published by the State.

This is the twenty-third annual report and embraces the usual scope of reports of this class.

THE YOUTH'S COMPANION. Price, $1.75 per year. Perry Mason & Co., Boston.

Five strong serial stories are announced for publication for 1898. They are: "The Freshman," a romance of college life, by Jesse L. Williams; "The Gold Fields of the Yukon," a story of placer-mining in Alaska, by Irving Andrews; "Ferieda Fairfax, Writer," the story of a girl who wanted to do newspaper work, by Margaret Tracy; "The Story of a Bee Farm," by Edith A. Fairfield; and "The Making of Zimri Bunker," a rousing tale of heroic deeds in Nantucket during the War of 1812, by William J. Long. These stories make up only a small part of the good things that will be spread before readers of this journal during 1898. Present readers of *The Companion* who renew their subscription and new subscribers will receive free a beautiful calendar printed in twelve colors, and embossed in gold. The paper will be sent free to new subscribers every week from the time the subscription is received to January, 1898; then for a full year to January, 1899. An illustrated prospectus will be sent free to any one soliciting the same.

THE CANADIAN MAGAZINE. Price, 25 cents; $2.50 per year. The Ontario Publishing Co., Toronto.

The Christmas number appears with a dainty and appropriate cover. The chief articles are: "Not Dead Yet," by Goldwin Smith; "The White Cockade," by James Workman; "John Carew's Christmas Eve," by Charles G. Rogers; "With Booker's Column," by Robert Larmour; "A Poet and a Diplomatist," by Katharine L. Johnston; "The Tune McGilvray Played," by Gilbert Parker; "The Makers of the Dominion of Canada" (II), by J. G. Bourinot; "Hagar of the Pawnshop" (V), by Fergus Hume; "A Memoir of Tennyson," by George R. Parkin; "Current Events Abroad," by A. H. U. Colquhoun; "A Great Canadian Industry," by James Alexander. There are the usual poetry and departments.

MCCLURE'S MAGAZINE. Price, 10 cents; $1.00 per year. The S. S. McClure Co., New York.

The December issue opens with a story of India, by Rudyard Kipling. Anthony Hope gives the first chapters of "Rupert of Hentzau," a sequel to his famous "Prisoner of Zenda." Robert Barr tells what the archbishop got for a Christmas gift. Other contributors are Bliss Perry, Ella Higginson, J. M. Thayer, R. H. Sherard, the late Charles A. Dana, and W. T. Stead. The handsome cover design is by C. L. Hinton.

Therapeutic Brevities.

Woodbridge Treatment of Typhoid Fever.—Responding to many inquiries from correspondents THE AGE gives the following formulæ as comprising the Woodbridge treatment. Too much pains cannot be taken to provide the patient with absolutely reliable tablets and capsules. The trash which is hawked about the market under the unauthorized use of Doctor Woodbridge's name cries to high heaven, and undoubtedly accounts for not a few of the reported failures. The treatment is essentially one of intestinal antisepsis. Formula No. 1 is as follows:

℞ Resini podophylli, $\frac{1}{60}$ grain.
Hydrargyri chloridi mitis, $\frac{1}{10}$ grain.
Guaiacol carbonatis, $\frac{1}{15}$ grain.
Menthol, $\frac{1}{15}$ grain.
Eucalyptol, q. s.

Misce et fiat triturate No. i.

Sig.: One every fifteen minutes during the wakeful period of the first forty-eight hours, or until eighty or one hundred have been taken.

Large potations of sterilized carbonated water are recommended. At the end of twenty-four hours begin with:

℞ Resini podophylli, $\frac{1}{60}$ grain.
Hydrargyri chloridi mitis, $\frac{1}{10}$ grain.
Guaiacol carbonatis, $\frac{1}{4}$ grain.
Menthol, $\frac{1}{10}$ grain.
Thymol, $\frac{1}{15}$ grain.
Eucalyptol, q. s.

Misce et fiat tablet No. i.

Sig.: Give one every fifteen minutes with No. 1 until five or six free evacuations of the bowels have been procured, during this and the following day.

About the third or fourth day Doctor Woodbridge gives:

℞ Thymol, 1 grain.
Guaiacol carb., 3 grains.
Menthol, $\frac{1}{2}$ grain.
Eucalyptol, 5 minims.

Misce et fiat capsule No. i.

Sig.: Give one every three hours until temperature has been normal for at least three days.

For children the same medicinal treatment is instituted in smaller doses.

Boils.—The objects aimed at by the treatment are: Soothing and protecting an inflamed area: Exclusion of air, and: A slight antiseptic action. For this purpose a moderately thick layer of absorbent cotton is taken, several times the size of the inflamed surface: for a medium-sized boil a piece one by two inches, with the fibers running the long way. Upon the center of the cotton a considerable mass of the following ointment is spread by

means of a spatula, and this is then laid over the boil, and held in place by strips of adhesive plaster across the ends, but not passing over the boil:

℞ Carbolic acid, 5 to 10 grains.
Fluid extract ergot, 1 to 2 drachms.
Powdered starch, 2 drachms.
Zinc oxide, 2 drachms.
Rose-water ointment, 8 drachms.

The relief often given by this dressing is very marked; the ointment soothes and protects the irritated surface, while the layers of cotton take up any outside friction. If comfortable, and unless disturbed, this dressing remains untouched twelve or more hours, when it is removed and a freshly spread piece immediately reapplied. If there has been any discharge the surface may be very gently cleansed with absorbent cotton, but I do not allow any squeezing. In many instances with proper internal and general treatment the boil aborts, and subsides without discharging; when this does not happen it ruptures spontaneously in a relatively short time, and I practically never find it necessary to incise it. This treatment I use in all stages of boils, keeping the ointment on until the boil is quite healed. If other boils form I direct it to be applied early, and by this means they are frequently aborted.—L. Duncan Bulkley, in *Clinical Review.*

For Coryza or Hay-fever.—

℞ Hydrochlorate of cocaine, 3 grains.
Boiled water, ½ ounce.
Neutral glycerin, 30 minims.

Or use the following ointment applied to the mucous membrane by means of smearing it on small tampons of absorbent cotton:

℞ Hydrochlorate of cocaine, 3 grains.
Thymol, 3 grains.
Subcarbonate of bismuth, 2 ounces.
Vaselin, 1 ounce.

Or the following powder may be insufflated into the nostrils:

℞ Powdered boric acid, 30 grains.
Salicylate of sodium, 40 grains.
Hydrochlorate of quinine, 3 grains.

Or any of the following may be used:

℞ Naphthalene in impalpable powder, 6 drachms.
Boric acid (impalpable powder), 6 drachms.
Powdered camphor, 15 grains.
Extract of violets, 15 grains.
Essence of roses, 20 drops.

℞ Menthol, 5 to 10 grains.
Powdered boric acid, 40 grains.
Powdered chalk, 40 grains.
Hydrochlorate of cocaine, 7 grains.

℞ Menthol, 6 grains.
Salicylate of bismuth, 75 grains.
Sugar of milk, 75 grains.

—*Journal de Médecine de Paris.*

Whooping-cough.—The association of excessive mucous discharge with the spasmodic stage of pertussis, taken in connection with the prompt relief of the cough that follows its expulsion, suggests its causal relation to the intense reflex excitation which is characteristic of the paroxysms:

Its manner of offending is probably by its irritating contact with the nerve endings in the mucosa; hence the *temporary* efficacy of the emetics ipecac and alum in causing its forcible ejection from the body:

Biniodide of mercury, by its specific liquefying action upon the glandular secretions, exerts an antidotal influence upon the disease, and thus directly lessens reflex excitability; its potent germicidal property also renders it fully equal to any possible indication in that direction:

The use of the biniodide of mercury, as outlined above, is so far from being fraught with harm to the patient that, on the contrary, its wholesome stimulation of the emunctories, and its beneficent action upon the blood itself, render it a direct promoter of somatic nutrition, while the ease with which it can be administered marks it as an ideal remedy for the class of patients who constitute one's clientele in this disease.—*Physician and Surgeon.*

Placenta Prævia.—Treatment by Champetier de Ribes' bag is recommended in the more severe cases of hæmorrhage, in place of version—the bag should be introduced into the amniotic cavity after rupture of the membranes. Used in this manner it acts both as a tampon in arresting the hæmorrhage, by pressing the separated portion of the placenta firmly against the uterine wall, as a dilator of the cervical canal, and as a very powerful stimulus to uterine contractions. It acts advantageously in quickly arresting hæmorrhage, and at the same time reduces the heavy fœtal mortality which usually occurs after the performance of version. The advantages claimed are:

Ease and facility of introduction:

The certain arrest of hæmorrhage:

Any further hæmorrhage is controllable by traction upon the bag:

The bag, and not the child's body, dilates the cervical canal:

The ease of delivery after expulsion of the bag:

The fact that the bag is a very powerful stimulus to uterine action:

The lessened fœtal mortality as compared with the results obtained after version.—*Transactions of Obstetrical Society of London.*

Treatment of Ulcers by Oxygen.—Possibly the oxygen acts in one or more of the following ways: Diminution of irritation—any dressing applied to an open sore causes more irritation than a mixture of oxygen and pure air: Direct stimulation without irritation: The oxygen may oxydize the toxines produced by micro-organisms in the surface of the ulcer—this may apply more especially to the toxines produced by bacilli when present: As stated by Mr. Stoker, the oxygen has possibly a selective power in its action on micro-organisms present in the ulcer, encouraging staphylococci, which then outgrow the bacilli. Some of the foregoing points are at present under investigation. Here, as yet, we have only the practical results of a few cases to go by, all of which are in favor of the oxygen treatment.—Semple, in *The Lancet* (London).

Puerperal Sepsis.—Suspected infection of the birth canal should be confirmed when possible by a bacteriological examination of vaginal secretions, and every means of differentiating from other affections resorted to, that they may be treated rationally either by medicine or by surgery:

Irrigation and antiseptics destroy the nutrition of the parts when continued and, furnishing increased moisture, improve the field for the development of micro-organisms, aside from the danger of death resulting from the antiseptic used:

The birth canal can be kept comparatively dry by absorbent dressing, removing the culture media and arresting the development of germs and infection until the abraded parts have healed.—Miller, in *American Journal of Obstetrics.*

Triticum Repens.—Trit. repens has no superior in the treatment of irritation of the urinary apparatus. It increases the amount of urine and renders it bland; is also somewhat demulcent in action. Also is an excellent remedy in so-called gravelly or phosphatic urine. In chronic cystitis it is unexcelled; in dysuria from irritation in the bladder or urethra it is always to be considered. The enlarged and irritable prostate in old men is quickly quieted many times by the free use of triticum. In strangury and in bloody urine arising from any part of the tract from the kidney to the meatus, triticum has few if any equals, and no superiors. Especially is this true of the infusion.—The infusion, iced, or with a slice or two of lemon in it, forms an excellent drink in fever.—*Eclectic Medical Journal.*

Cancer of the Stomach.—To increase the appetite:

℞ Bark of white condurango, 15 parts.
Water, 250 parts.

Reduce by boiling to 150 parts, filter, and add syrup. A soupspoonful is to be taken a quarter of an hour before meals.

To favor digestion:

℞ Muriate of ammonia, 0.15 gramme.
Bicarbonate of soda, 0.26 gramme.
Dover's powder, 0.10 gramme.

To be taken ten minutes before meals.

To diminish fermentation: Sublimated, washed, or precipitated sulphur, 0.15 to 0.20 gramme.—Robin, in *Journal de Médecine de Paris.*

Zinc Glue for Surgical Dressings.—The following is advised as a means of obtaining stiff surgical dressings, such as are applied to fractured or dislocated limbs:

℞ Zinc oxide, 10 parts.
Gelatin, 30 parts.
Glycerin, 30 parts.
Water, 30 parts.

This is thickly applied and rubbed into the muslin or gauze forming the bandage. A thicker preparation contains twenty parts of gelatin and forty parts of water, the other ingredients remaining the same.—*The Prescription.*

For Pruritus Ani.—

℞ Powdered camphor, 30 grains.
Oxide of zinc, 1 ounce.
Bismuth, 1 ounce.
Talc, 1 ounce.

This powder is applied by means of absorbent cotton, the part which itches having been first painted by a twenty-five-per-cent. solution of nitrate of silver, after which a suppository of cacao butter and extract of belladonna may be used.—*La Presse Médicale Belge.*

Mechanical Treatment of Seasickness.—Rawlins, an English physician, says that the elevation of the extremities will quickly relieve symptoms of seasickness by increasing the

arterial pressure, and thus diminish the anæmia of the nervous centers due to the enfeebled action of the heart. The application of warm flannel bandages to the legs and arms will increase the effect produced by the simple elevation. In this way he was able to make two ladies comfortable during a journey to India who had previously suffered seriously from severe seasickness.—*Medical News.*

Asthma.—For the relief of the asthmatic paroxysm Dr. S. Solis-Cohen finds nothing better than a combination of:

℞ Morphine sulphate, ⅛ to ¼ grain.
Strychnine sulphate, $\frac{1}{60}$ to $\frac{1}{30}$ grain.
Hyoscine hydrobromate, $\frac{1}{100}$ grain.

Given hypodermatically at bedtime. In some cases its repetition is unnecessary. In other cases, after two or three injections complete relief from the attack has been observed.—*Philadelphia Polyclinic.*

Œdema.—A diuretic wine valuable in œdema, general anasarca, dropsy, cardiac and renal diseases is composed as follows:

℞ Fluid extract jalap, 4 drachms.
Fluid extract squills, 4 drachms.
Fluid extract jaborandi, 1 ounce.
Fluid extract digitalis, ½ drachm.
Powdered nitrate of potash, 4 drachms.
Angelica wine, 2 pints.

A tablespoonful every three hours.

—*Doctors' Factotum.*

Rosacea.—An ointment prescribed by Judassohn is:

℞ Ichthyol, 15–75 grains.
Resorcin, 15–45 grains.
Lanolin, 6¼ drachms.
Olive oil, 2½ drachms.
Distilled water, q. s. ad 1½ ounces.

M. The proportions of ichthyol and resorcin may be gradually increased according to the tolerance of the patient.

—*La Médecine Moderne.*

Gastric Indigestion.—This when accompanied by what is termed torpidity of the liver will be readily amenable to:

℞ Acid nitro-muriatic, diluted, 4 drachms.
Tincture of nux vomica, 2 drachms.
Fowler's solution, 72 drachms.
Essence of pepsin, sufficient to make 6 ounces.

Dessertspoonful three times daily after meals.

—*The Practitioner.*

Malaria in Children.—A. Zukermann uses the following:

℞ Tinct. eucalypt. glob., 8 parts.
Spts. vini dilut., 8 parts.
Quin. mur., 2 parts.
Chinoidini, 1.25 to 2 parts.
Acid. mur. dil., q. s. ad solutio.

M. Sig.: Twenty to forty drops five times a day.

—*Gaillard's Medical Journal.*

For Herpes.—

℞ Resorcin, 45 grains.
Cocaine, 15 grains.
Alcohol, 3 ounces.

This is to be applied by means of a swab to the herpetic spot.

—*Journal des Praticiens.*

For Neuralgia.—

℞ Extract of hyoscyamus, 4 grains.
Extract of valerian, 4 grains.
Hydrochlorate of morphine, 1 grain.

Make into four pills; take one to four in twenty-four hours.

—*Revue de Thérapeutique.*

Tinea Favosa.—Wash thoroughly with green soap, shaving the scalp and applying in the following proportion:

℞ Carbolic acid, 5 drachms.
Vaselin, 3 ounces.
Glycerin, 3 ounces.

—*Exchange.*

For Intercostal Neuralgia.—

℞ Chloral hydrate, 2 ounces.
Camphor, 2 ounces.
Menthol, 2 ounces.

M. Sig.: Paint over painful areas.

—*Medical News.*

For Dyspepsia.—

℞ Powdered rhubarb, 4 drachms.
Bicarbonate of soda, 1 drachm.
Essence of peppermint, 2 drachms.
Water, to make 4 ounces.

Dose, one teaspoonful.

Gouty Eczema.—

℞ Black wash, 4 ounces.
Carbolic acid, 2 drachms.
Glycerin, 4 drachms.

For external use.

—*Exchange.*

Medical Progress.

CLEANLINESS AND HONESTY.—If it is wrong to have free baths—and these are and always have been as free for the rich as for the poor—it must be equally wrong to have public works of all sorts. It must be degrading to have band concerts, since not one in ten thousand listens to them; it must be injurious to have parks, since a great many people stay out of them; it must be debasing to have our streets graded paved and cleaned out of a public fund, our garbage gathered and ashes removed by public contractors, our boulevards smoothed for pleasure travel, and our streets and squares lighted at public expense; our new electric fountain is, by consequence of this finding, a menace; our municipal statuary a crime—well, we admit that some of it is; our public schools a waste; our public libraries a breeder of ignorance; our Board of Aldermen an unwarranted luxury; our health inspectors an interference; our free hospitals, asylums, almshouses, orphanages and homes an assault on our civilization; our police superfluous; in fact, every common benefit that we enjoy out of the common funds raised by common taxes is a danger.

But really, we do not believe that it is. We believe that the individual who bathes, even for the fun of the thing and not as a sanitary measure or a civilized custom, is cleaner than the person who does not. We believe that the blood courses in more speedy and healthful currents through his veins than through those of the unclean, and that with healthy blood and a white skin he is less likely to think and to do mean, dishonest things than his neighbors. We believe that if he is taken young he can be made to accustom himself to the bath and that incidentally to this he will demand cleaner surroundings, will keep his clothes and his home and his street cleaner than they used to be. We believe, heartily, in the proverb that cleanliness is next to godliness, and if you take a company of progressive, honest, industrious Americans and an equal company of people from the east side of New York, the difference between the two companies will be obvious to all the senses in a minute. We want all of our people to get into the washing habit, not merely on their own account, but on ours. They endanger our health by their carelessness in that respect. They invite epidemics and create them. Nor have we heard that the public baths which have for years been a fixture in all the seaboard cities have become sinks of iniquity. On the contrary we have no doubt that they have not only been an encouragement to personal purity, but that in the hot months they have been a means of saving life. Deny to the poor those advantages which are possessed by the rich and you intensify discontent. When the poor are so very poor as they are in our cities and have neither the knowledge nor custom nor initiative to be other than as they are, it is a duty of the public, as its own government, to educate them out of their condition, to give schools to them where their minds may be developed, in order that they may share intelligently in the work of self-rule; to give baths to them, that they may be fit to associate together and with others without offense and without danger. A man cannot truly respect himself who is dirty. Stimulate the habit of cleanliness and we increase the safety of our cities. And give over the idea that a free bath is any more of a "gratuity" than the right to walk in the public streets.—*Brooklyn Eagle.*

THE CIGARETTE HABIT.—It is a popular delusion that when the smoke of a cigarette is inhaled it pervades the air vesicles of the lungs, and the nicotine it contains is all absorbed into the blood through the delicate respiratory membrane. As a matter of fact the smoke reaches only to the larger bronchial tubes, probably in a majority of instances not to a point much below the larynx. To the mucous membrane of these large air passages the smoke does little harm as an irritant, although it may aggravate pathological conditions already present. The surface by which nicotine is absorbed into the blood is much larger than that of the mouth, however; so that, although relatively only a little of the poison is contained in a cigarette, much more of it finds its way into the system than when the smoke from a cigar or pipe is simply drawn into the mouth and at once blown out. The inference to be drawn from this is that the inhalation of tobacco smoke is a bad practise. That it is more likely to be indulged in by persons who smoke cigarettes than by those who restrict themselves to cigars and the pipe may be readily conceded. At the same time it is quite certain that many smokers inhale cigar smoke and pipe smoke at times, if not habitually; sometimes they do it involuntarily. Equally absurd is the common assumption that cigarettes are especially injurious on account of their containing other poisons besides nicotine. So far as the constitutional effects of cigarette smoking are concerned, as the result of fifteen years of careful study of the

matter I find they are absolutely the same as those of tobacco used in any other form. Ledaux, who has subjected various brands of cigarettes to chemical analysis, found absolutely no evidence of any other drug but nicotine in the tobacco, and in the paper a harmless quantity of cellulose. It is, indeed, the height of absurdity to suppose that cigarettes are sophisticated with opium. Opium, as has been often said, is too expensive to be used for such a purpose. The chief evil of tobacco is its constitutional effect upon the nervous system, and as the cigarette habit is so common in boys, it is to be deplored on that account; but, as far as its local effects on the larynx are concerned, I have been unable to discover any but trivial hyperæmia and secretion. —MULHALL, in *New York Medical Journal.*

THE FERTILITY OF TWINS —"The first and father-cause of common error," says Sir Thomas Browne, "is the common infirmity of humane nature," but a no less potent cause is "the credulity of men who give an easy assent to what is obtruded, or a believing at first ear what is delivered by others." All vulgar errors appear to contain a germ of truth, though it is often concealed and overlaid by a luxuriant growth of the popular imagination. The examination of vulgar errors is therefore as necessary as it was in the time of Sir Thomas Browne, and it is no less interesting. There is a wide-spread idea that of twin sisters both never become mothers. The germ of truth in this statement was known even to Pliny, who says "if a woman bring twins, it is a great goodhap if they all live, but either the mother dieth in childbed, or one of the babes, if not both. But if it fortune that the twins be of both sexes, one male the other female, it is ten to one if both of them escape." Indeed, "a left twin" is one of the commonest objects among the poorer classes to this day, where it is spoken of with bated breath. Arrived at maturity twin sisters are supposed to be sterile, but upon quite insufficient grounds. There are undoubted cases where both girls have married and have had large families. The error seems to have arisen from too limited an observation upon the part of farmers, who have applied what is partially true of cattle to what is quite untrue of their own offspring. In cattle, twin ewes always breed, unless one is a hermaphrodite, whilst in the case of calves, when one is a bull and the other a female, the latter hardly ever breeds, but grows up like an ox. Such a cow calf is well known to breeders as a "free-martin," and it presents evidence of marked imperfection or malformation of the genital organs. There is no doubt in the mind of any one that twin brothers, like twin bulls, are perfectly virile, and there is no reason to suppose that twin sisters, otherwise healthy and well-formed, are not *equally apt* to conceive.

FORMALDEHYDE AS AN ANTISEPTIC.—F. J. C. Bird, in the *Pharmaceutical Journal*, gives the following table of the uses and the strength of formaldehyde as an antiseptic. One part of formaldehyde in the tables represents two and one-half parts of full strength, or forty-per-cent. solution of commerce: 1.125,000 kills anthrax bacilli; 1.50,000 prevents the development of typhus bacilli, etc.; 1.32,000 preserves milk for several days; 1.25,000 forms a useful injection in leucorrhœa, etc.; 1.20,000 preserves wines, weak alcoholic liquids, and beer, also milk, for several weeks; 1.4000 is recommended for moistening paper used to cover jam, etc.; 1.3200 for rinsing dairy vessels, etc.; 1.2500 destroys the most resistant micro-organism in one hour; 1.2000 for rinsing casks and vessels intended for liquids liable to fermentation; 1.500 for the irrigation of catheters, etc., and as a mouth-wash; 1.250 to 200 is a general disinfectant solution for washing hands, instruments, etc., in surgery, spraying in sick-rooms, and as a deodorant; 1.160 to 100 hardens microscopic tissues, which should be immersed for a considerable time to give the best results; 1.100 in lupus, psoriasis, and skin diseases; 1.50 to 25 sterilizes surgical catgut, silk, etc., by steeping; 1.25 for quickly hardening and preserving microscopical sections; longer immersion in a weaker solution gives better results; 1.10 for hardening very firm tissues in pathological and histological work; 1.5 for hardening firm tissues in such work; 1.2½ for hardening soft tissues for the same purpose.

The fact that water absorbs formaldehyde readily to the extent of a forty-per-cent. solution renders it easy of application as a disinfectant, and it is in this aqueous solution that it is found in the market, and is thus miscible with water to form any degree of strength desired.

FUNCTIONS OF THE THYROID.—The special function of this gland consists in transforming the iodine salts in the blood into an organic compound known as *iodothyrin*, thus ridding the nerve centers of an extremely dangerous toxic substance. This function

of the gland is dependent directly upon the heart. The nerve filaments of this organ so relate it to the laryngeal nerves as to preside over the elaboration of the iodothyrin needful for its own normal action. Thus while the thyroid gland is preservative of the nerve centers, by the elaboration of iodothyrin, its functional action is also presided over by the heart.

The power of iodothyrin to stimulate the nerve centers which regulate action of heart and the circulation of the blood being conceded, it follows that in vascular or hyperemic conditions of the thyroid gland iodothyrin is markedly contraindicated. On the other hand, where the gland becomes atrophied, the use of iodothyrin and extract of thyreoid gland is especially advisable. Another function of the gland and one which has longer been recognized is this: the gland in close relation with the carotid arteries as they enter the skull forms a kind of secondary blood circuit of feeble resistance. It thus affords the brain a protection from dangers which might arise by undue determination of blood to that organ, or undue pressure, whether from overaction of the heart or from stenoses of the blood channels.

That marked beneficial results obtain from the judicious use of thyreoid extract is too apparent to be questioned, but the conditions under which such use is indicated becomes a matter of much importance.—E. DE CYON.

CONSERVATIVE TREATMENT OF HIP DISEASE.—From 1894 to 1897 I had under treatment six hundred and fifteen cases of coxalgia. Two hundred and sixty-one were without the formation of pus, and treated without question of operation, the lighter cases being kept at rest with continuous extension, the severer cases with absolute immobilization by plaster apparatus. During convalescence the patients were allowed to move around with an immobilization apparatus. In one hundred and eight cases an abscess had to be treated. All were treated with modifying injections of camphorized naphthol. In ninety-four cases a cure was obtained after from two to ten injections, very seldom more. In six a persistent fistula remained, and in eight in which after a long series of injections no improvement was noticed, resection of the hip was performed and followed in seven cases by primary union, in the eighth by a fistula that persisted for five months. In the six hundred and fifteen cases of hip disease, in five years the mortality was twenty-two. There were nine deaths without operation, from meningitis, cachexia, and visceral tuberculosis; thirteen after operation, four of these from shock. The principle of treatment insisted on was not to convert a closed aseptic hip joint abscess into an open one with all the dangers of mixed infection.—MENARD.

PREMONITORY SYMPTOMS OF PUERPERAL INFECTION.—The true rigor, local pains, and conspicuous pulse and temperature are known to all, and when combined indicate more or less advanced infection, but these symptoms never come on suddenly, though certain milder types of infection now observed may represent sepsis modified by antiseptic agents; these milder types, however, will assuredly develop into deadly septic infection if neglected. But even the severest form is preceded for a day or two by distinct elevation of temperature and pulse, and by insomnia. An evening temperature of about 100° in the axilla, with a fall of about a degree in the morning without a corresponding drop in a somewhat rapid pulse, is a distinctly suspicious symptom. The rise in the pulse often precedes the rise in the temperature; the observer must therefore make sure that acceleration of the heart's action is accounted for even in a patient who seems otherwise convalescent. Reaction after the fatigue of labor, hæmorrhage, and emotions all send up the pulse. Insomnia is often observed in the earlier stages of infection, and distinct want of sleep without restlessness is usual for a day or two before bad septic symptoms. The lochia may remain free from odor in the premonitory stage of puerperal septicæmia, nor are the discharges always fœtid when the disease is established.—*L'Obstetrique.*

TUBERCULIN IN DERMATOLOGY.—In a paper read at the meeting of the Mississippi Valley Medical Association, Louisville, Kentucky, October, 1897, Doctor A. Ravogli of Cincinnati reaches the following conclusions:

1. That tuberculin is a great help in dermatology, both as a diagnostic and as a therapeutic means

2. That in lupus erythematosus it acts remarkably well as a systemic treatment, but, of course, the locality must be treated with external applications.

3. In a large number of instances he never had any bad effects; and the condemning of tuberculin for fear of spreading tuberculosis is absolutely absurd.

4. That the *old tuberculin* has given more

regular reaction, both general and local, than the new tuberculin; and thus far he has found in dermatological work that the *old* is preferable to the new tuberculin.

5. That in cases where no other remedy has any beneficial influence, and the tuberculin causes the disappearing of the eruption, the healing of the ulcers, and improvement of the general condition, this remedy has to be acknowledged as a great remedy.

6. That if relapses occur, after ceasing the use of tuberculin, the remedy must not be blamed. It must be used for a long time, in small doses at long intervals, until recovery is assured.

The Correction of the Dispensary Abuse.—During the past five years 12,947 cases were admitted to the Washington Eastern Dispensary, an average of 2589 cases a year; the number of applicants registered in the six months ending June 30, 1897, was 1110; of this number the report states 309 were *admitted* to treatment, and 801 were *refused*, as they either refused to furnish evidence of being worthy, or were unable to obtain it—in other words, over *seventy per cent.* were found *unworthy* of charity treatment. These applicants were refused aid; now, where did they go? They either sought advice from some physician, went to some other institution where the swell of numbers was a necessity, or recovered without medical aid. It is not within the range of charity to render poor service to an applicant—either the best or none at all—and an institution which adheres strictly to the policy of preventing fraud upon the medical profession and upon a benevolent public should have the support which it requires—moral, financial, and professional.—Llewellyn Eliot, M.D., in *Virginia Medical Monthly*.

Is This an Age of Cleanliness?—If we were a cleanly people we should have no typhoid fever, no cholera, no summer complaint, no consumption, no yellow fever, and little if any contagious disease of any kind. For the existence of ordinary filth-diseases of any kind there should now be no possible excuse. A few zymotic diseases are conveyed in ways not yet well known. For the existence of these there is some excuse, but even with them cleanly habits lessen the danger.

Such an epidemic as that at Maidstone, in England, is a disgrace to our boasted civilization. For a single town of that size to have 1840 cases of typhoid fever within a few weeks is a sad commentary upon modern methods of treating drinking-water. To learn that the Schuylkill and Delaware Rivers, at Philadelphia, are infected with pathogenic spirilla, and to know by many tests that the water of the Hudson is loaded with typhoid bacilli, forbid our boasting of better conditions here than abroad.—*American Medico-Surgical Bulletin.*

Acetone in Urine an Indication of Fœtal Death.—Knapp reports, from the German obstetrical clinic of Prague, ten cases of fœtal death at various periods of gestation in which, upon the day of labor, acetone was found in the urine; this substance was also present during the three days following labor. Some of these patients were syphilitic, but the influence of syphilis upon the presence of acetone is not determined. Half of the cases reported had suffered from syphilis, or were syphilitic at the time of pregnancy. To ascertain the presence of acetone Jaksch's method was followed; this consists essentially in adding to the urine nitroprusside of sodium, and then either caustic soda or potassa to alkaline reaction. Acetic acid is then dropped into the fluid until the characteristic purple or violet color develops.—*Pacific Medical Journal.*

To Determine Death of the Fœtus.—Death of fœtus is accompanied by the appearance of acetone in the urine of the mother; this may easily be demonstrated by the fuchsin test of Chautard. A solution of fuchsin, 1 to 2000, is decolorized by sulphuric acid. To make the test, half an ounce of urine is poured into a test tube, and a few drops of the fuchsin solution added. If acetone is present, the color of the urine becomes violet, the depth depending on the quantity of acetone. This simple test is within the reach of every practitioner.—*Medical News.*

Senile Cataract.—In the *hasty diagnosis of senile cataract* I would call attention to the reflection of light by transparent lenses in elderly persons and particularly in those belonging to the African races. The gray color of the pupil is often misleading and may influence the physician to express his opinion that cataract is present, when further examination with oblique light and with the ophthalmoscope will at once convince him that his diagnosis is erroneous.—Hansell.